Acer Altos G710

User's Guide

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Record the model number, serial number, purchase date, and place of purchase information in the space provided below. The serial number and model number are recorded on the label affixed to your computer. All correspondence concerning your unit should include the serial number, model number, and purchase information.

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Notices

FCC notice

Class A devices do not have an FCC logo or FCC IDE on the label. Class B devices have an FCC logo or FCC IDE on the label. Once the class of the device is determined, refer to the following corresponding statement.

Class A equipment

This device has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at personal expense.

Class B equipment

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the device and receiver
- Connect the device into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/television technician for help

Notice: Shielded cables

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Notice: Peripheral devices

Only peripherals (input/output devices, terminals, printers, etc.) certified to comply with the Class A or Class B limits may be attached to this equipment. Operation with noncertified peripherals is likely to result in interference to radio and TV reception.

Caution! Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this server.

Use conditions

This part complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice: Canadian users

This Class A/Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Laser compliance statement

The CD-ROM drive in this server is a laser product. The CD-ROM drive's classification label (shown below) is located on the drive.

CLASS 1 LASER PRODUCT
CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.

Important safety instructions

Read these instructions carefully. Save these instructions for future reference.

1 Follow all warnings and instructions marked on the product.

2 Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

3 Do not use this product near water.

4 Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

5 Slots and openings on the back or bottom side of the chassis are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.

6 This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

7 Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

8 If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed the fuse rating.

9 Never push objects of any kind into this product through chassis slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

10 Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.

11 Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    a When the power cord or plug is damaged or frayed

    b If liquid has been spilled on the product

    c If the product has been exposed to rain or water d If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.

  e If the product has been dropped or the cabinet has been damaged

  f If the product exhibits a distinct change in performance, indicating a need for service.

12 Replace the battery with the same type as the product's battery we recommend. Use of another battery may present a risk of fire or explosion. Refer battery replacement to a qualified service technician.

13 **Warning!** Batteries may explode if not handled properly. Do not disassemble or dispose of them in fire. Keep them away from children and dispose of used batteries promptly.

14 Use only the proper type of power supply cord set (provided in your accessories box) for this unit. It should be a detachable type: UL listed/CSA certified, type SPT-2, rated 7A 125V minimum, VDE approved or its equivalent. Maximum length is 15 feet (4.6 meters).

Contents

Notices iii
  FCC notice iii
  Laser compliance statement iv
Important safety instructions v

1 System tour 1
Features summary 3
External and internal structure 7
  Front bezel 7
  Front panel 8
  Rear panel 13
  Internal components 16
System boards 17
  Mainboard layout 17
  Jumper settings 21
  Backplane layout 22
  SAF-TE board layout 24

2 System setup 25
Setting up the system 27
  Preinstallation requirements 27
Connecting peripherals 28
Turning on the system 29
  Power-on problems 31
Configuring the system OS 32
Server setup 33
Turning off the system 34

3 System upgrade 37
Installation precautions 39
  ESD precautions 39
  Preinstallation instructions 39
  Post-installation instructions 40
Opening the server 41
  Opening the bezel door 41
  Removing the bezel door 41
  Removing the bezel 42
  Removing the left-side panel 43
  Removing the air baffle 43
Configuring the four-bay hot-plug HDD cage 45
  Installing the four-bay hot-plug SCSI HDD cage 45

Installing the four-bay hot-plug SATA HDD cage 47
Installing a hard disk into the four-bay hot-plug HDD cage carrier 49
Replacing storage devices 51
Replacing the FDD 51
Replacing the CD-ROM drive 53
Upgrading the CPU 56
Installing the heatsink and CPU 56
Removing the heatsink and CPU 58
Upgrading the system memory 60
Removing a DIMM 63
Installing a DIMM 65
Installing the Altos RAID-enabler (optional) 67
Installing an expansion card 69
Installing a power supply module 71
Replacing the easy-swap system fan 74
Removing an easy-swap system fan 74
Installing an easy-swap system fan 75
Installing an ePanel module (optional) 76

4 BIOS setup 79
BIOS setup 81
Entering BIOS setup 82
Main 84
System Information 86
Product Information 89
Advanced 90
Peripheral Configuration 91
IDE Configuration 93
Floppy Configuration 97
PCI/PnP Configuration 98
Boot Settings Configuration 99
Onboard Devices Configuration 102
Server Management Configuration 103
Remote Access Configuration 106
Power 109
Boot 111
Boot Device Priority 111
Hard Disk Drives 113
Removable Devices 114
ATAPI CD-ROM Devices 115
Security 116
To set a Supervisor/User password 117

    To change the Supervisor/User password 117
    To remove the User password 118
Exit 119

5 Troubleshooting 121
Resetting the system 123
Problems following initial system installation 124
First steps checklist 125
Hardware diagnostic testing 126
    Verifying proper operation of key system lights 126
    Confirming loading of the OS 127
    Specific problems and corrective actions 127

Appendix A: System management 133
ASM 136
    System requirements 136
    System setup 137
ePanel 139
RAID configuration 140

Appendix B: Acer Altos G710 rack installation guide 141
Setting up the system rack 143
    System rack installation 145
    Vertical mounting hole pattern 146
Installing the system into the rack 148

Appendix C: SCSI RAID configuration 157
Configuring the SCSI/SCSI RAID HBA 159
    Using the SCSI HBA setup utility 159
    Using the SCSI RAID HBA setup utility 159
    Using the MegaRAID configuration utility 160

Appendix D: ePanel 163
Overview 165
Installing ePanel 166
ePanel module 176
ePanel main menu 178
    Info 178
    Monitor 179
    Network 182

Setting 183

Index 187

1 System tour

The Acer Altos G710 server is a powerful dual-processor system loaded with a host of new and innovative features. The system offers a new standard for flexible productivity ideal for multimedia processing, intensive graphics applications, general business applications, email, web service, file clustering and print services.

Features summary

Listed below are the system's key features:

Processor

- Single or dual Intel® Xeon™ processor with 800 MHz front system bus
- Supports Intel® Hyper-Threading Technology
- Supports Intel® Extended Memory 64-bit Technology

Memory subsystem

- Eight 240-pin DIMM slots
- Supports DDR2 400 Registered ECC memory modules

Warning! Functionality issues may be encountered if mixed memory types are installed on the same mainboard. DIMM modules of identical type, banking and stacking technology, and manufacturer should be installed in the Altos G710 system.

- Maximum upgrade — 16 GB (when 2 GB of DDR2 400 Registered ECC memory is available)

Caution! When using multiple memory modules it is recommended that you AVOID using modules from different manufacturers or that run at different speeds from each other.

- 2-way memory interleave
- SDDC (Single Device Data Correction) for memory error detection and correction of any number of bit failures in a single x4 memory device
- Memory mirroring and sparing technology
    - When the memory mirror parameter in the BIOS Setup utility is enabled, only half of the memory capacity will be detected by the system OS (Operating System).
    - When the memory spare parameter is enabled, a DIMM slot will be reserved for standby in the event of significant failures in a particular DIMM and cannot be accessed by the system.

For instance, if 8 GB of memory is installed (four 2 GB DIMMs), only 4 GB of memory in DIMM 1B and DIMM 1A can be accessed by the system. Memory in DIMM 2B and DIMM 2A is reserved as spare DIMMs.

Refer to “Server Management Configuration” on page 103 for more information about configuring the memory spare or mirror parameter in the BIOS Setup utility.

Chipset components

- Intel® E7520 MCH (Memory Controller Hub)
- Intel® 82801ER ICH (I/O Controller Hub)
- Intel® IOP332 - I/O bridge

Media storage

- 3.5-inch, 1.44 MB floppy drive
- Three 5.25-inch device bays supports:
    - 5.25-inch IDE CD-ROM drive
    - DDS4 DAT 20 GB or 40 GB tape backup drive
    - DAT72 36 GB or 72 GB tape backup drive
    - AIT1 35 GB or 91 GB tape backup drive
    - DVD-ROM, DVD-RW, DVD combo drive

Additional media storage

- Hot-plug SCSI HDD cage
    - Supports up to four Ultra320 SCSI hard disk drives
- Hot-plug SATA HDD cage
    - Supports up to four SATA hard disk drives

SCSI controller

- LSI® Logic 53C1030 SCSI RAID controller
- Supports two SCSI 68-pin Ultra 320 SCSI connectors
- Supports RAID 1

RAID on motherboard (optional)

- Dual channel Ultra 320 SCSI channels
- Supports RAID 0, 1, 5, 10 and 50
- Requires RAID-enabler (iButton)
- Requires one 184-pin DDR 400 unbuffered ECC DIMMs for cache memory
    - Supports 128 MB memory module with iTBBU (Transportable Battery Backup Unit) cache memory
    - Support 256 MB or 512 MB memory modules (without battery backup)

Note: When the ROMB (RAID on motherboard) is enabled, the onboard SCSI controller will provide full hardware RAID functionality.

Graphics interface

- ATI® Rage XL chipset with 8 MB VRAM

Networking

- Dual onboard Broadcom BCM5721 10/100/1000Base-T Gigabit Ethernet controller

PCI I/O

- Six PCI bus slots with three separate bus segments:
    - Two x4 PCI Express bus slots (with x8 connectors)
    - Three 64-bit/100 MHz PCI-X bus slots
    - One 32-bit/33 MHz PCI bus slot

Serial ATA port

- Two SATA ports

Baseboard Management controller

- Onboard Hitachi 2168 management controller
- IPMI (Intelligent Platform Management Interface) 1.5 compliant

Service ID

- Front and rear service ID button

I/O ports

- Front
  - Two USB 2.0 ports
- Rear
  - PS/2-compatible keyboard and mouse port
  - Two USB 2.0 ports
  - VGA/monitor port
  - Serial port
  - Parallel/printer port
  - Two LAN ports (RJ-45)

Operating system and software

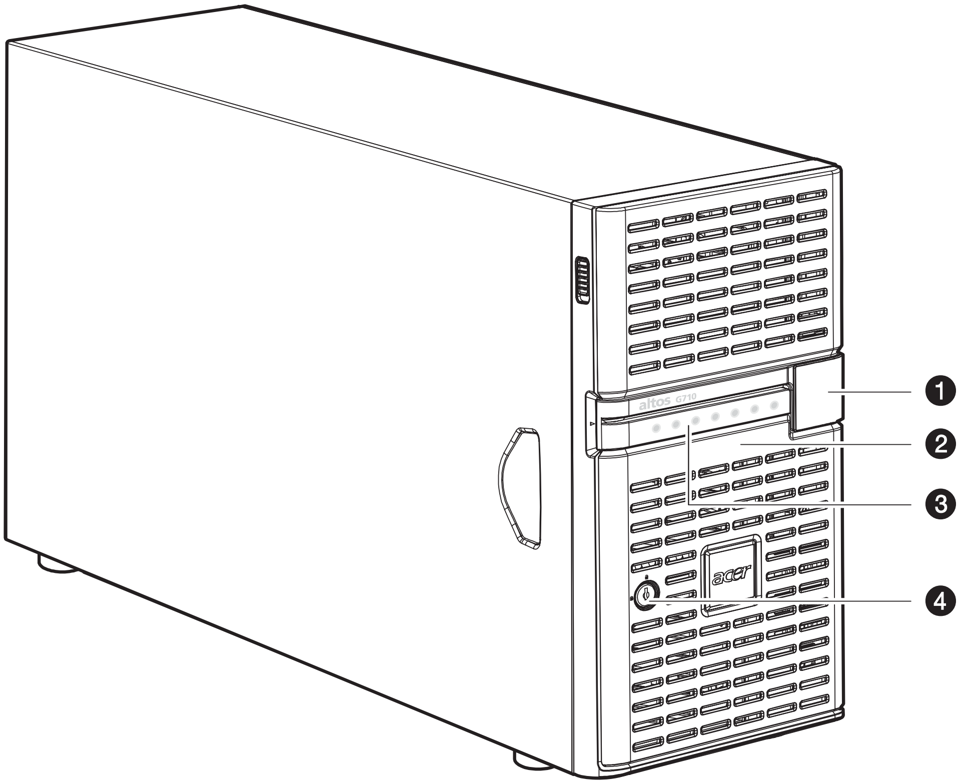
- Microsoft® Windows® 2000 Server (SP4)
- Microsoft® Windows® Server 2003
- Red Hat Enterprise Linux 3.0
- Novell® NetWare® 6.5
- SCO OpenServer™ 5.0.7
- SCO UnixWare® 7.1.4
- ASM (Acer Server Management)

Power supply

- 550-watts redundant power supply (optional)

External and internal structure

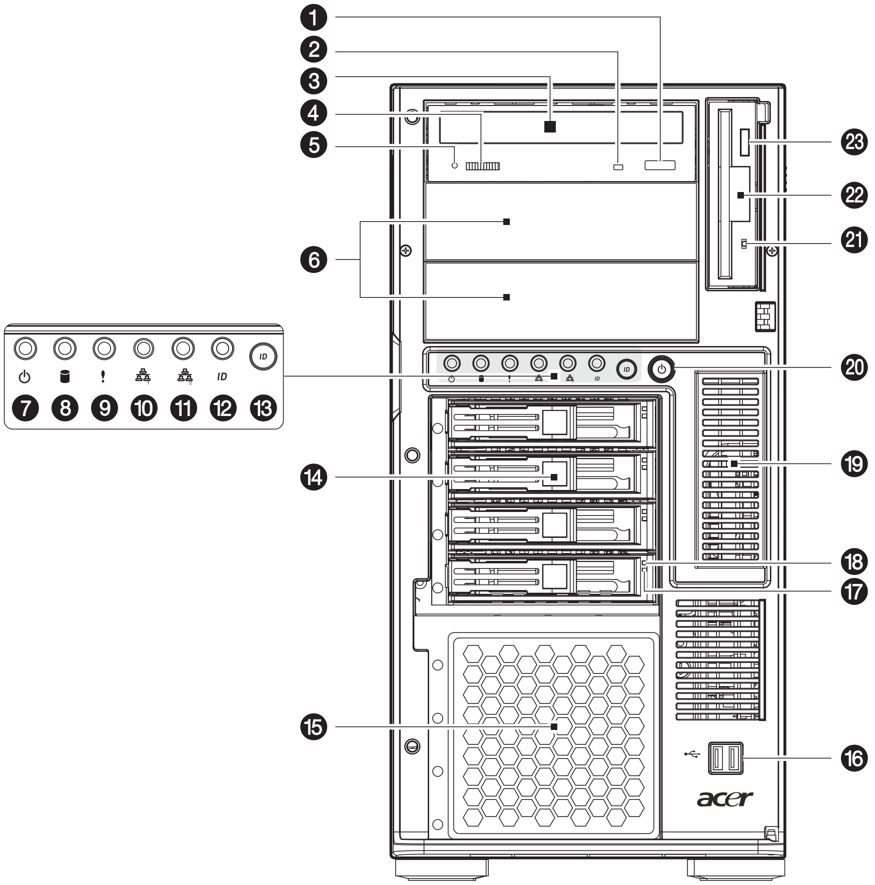
Front bezel



No.	Component
1	LCD display cover (for ePanel module) [1]
2	Bezel door
3	Front panel LED indicator
4	Security keylock

[1] The ePanel module is not included with your system. To purchase an ePanel module, contact your local Acer representative or order directly from http://www.acer.com/.

Front panel



No.	Icon	Component	Description
1		CD-ROM drive Stop/ Eject button	Press this button to open the CD drive tray.
2		CD-ROM drive activity indicator	When the LED indicator is lit, there is activity in the CD drive.
3		CD-ROM drive	Disk drive for reading CD-ROMs.
4		Volume control	Adjusts the volume of the CD drive.
5		CD-ROM drive Headphone/ Earphone port	Connects to microphones or earphones.

No.	Icon	Component	Description
6		5.25-inch drive bays	Two empty 5.25-inch drive bays allow installation of additional devices.
7	⏻	Power indicator [1]	Indicates AC power is present or system is turned on or off (green).
8	⛁	Hard disk activity indicator [1]	Indicates the status of the system hard drive.
9	!	System status indicator [1]	The indicator lights up green when the system is operating normally. When the a system fault is present, the indicator blinks or lights up amber.
10	🖧 1	LAN1 activity indicator [1]	Indicates an active link on the LAN1 port (green).
11	🖧 2	LAN2 activity indicator [1]	Indicates an active link on the LAN2 port (green).
12	ID	Service ID indicator	Indicates chassis ID status (blue).
13		Service ID button	Illuminates LEDs on both the front and rear of the server, simplifying identification of the server in a rack from the rear.
14		Four-bay hot-plug HDD cage	Houses four hot-swap SCSI drives.
15		HDD bay	For additional storage options. Supports a four-bay hot-plug HDD cage.
16		USB ports	Connects to USB devices.
17		Hot-plug HDD access indicator [2]	Indicates the status of the hard drive.
18		Hot-plug HDD power indicator [2]	Indicates drive activity (green).

No.	Icon	Component	Description
19		ePanel module cover	Remove the cover to install the optional ePanel module. For more information, go to page 76.
20		Power button	Press to turn on the system.
21		FDD activity indicator	When the indicator is lit, there is activity in the floppy drive.
22		FDD (Floppy disk drive)	Disk drive that reads and writes diskettes.
23		FDD Eject button	Press this button to remove a diskette from the floppy drive.

1 For more information about the status of the LED indicator, see
Front panel LED indicators table on page 11.
2 For more information about the status of the hot-plug HDD indicator, see
Hot-plug HDD LED indicators table on page 12.

Front panel LED indicators

Below table lists the LED states on the front panel.

LED	Color	Status	Description
Power	Green	On	Power on
		Blinking	System in ACPI sleep mode.
Status	Green	On	System in normal mode.
	Green	Blinking	• Defective CPU • Defective DIMM
	Amber	Blinking	• Redundant fan failure • Redundant power supply failure • Non-critical temperature and voltage failure
	Amber	On	• Critical power supply failure • Voltage power supply failure • Critical temperature and voltage failure
		Off	• POST error • NMI event • Missing CPU or terminator
HDD	Green	Blinking	HDD activity
		Off	No HDD activity
	Amber	On	HDD failure The HDD LED will light green when the four-bay hot-plug cage is installed in the chassis.

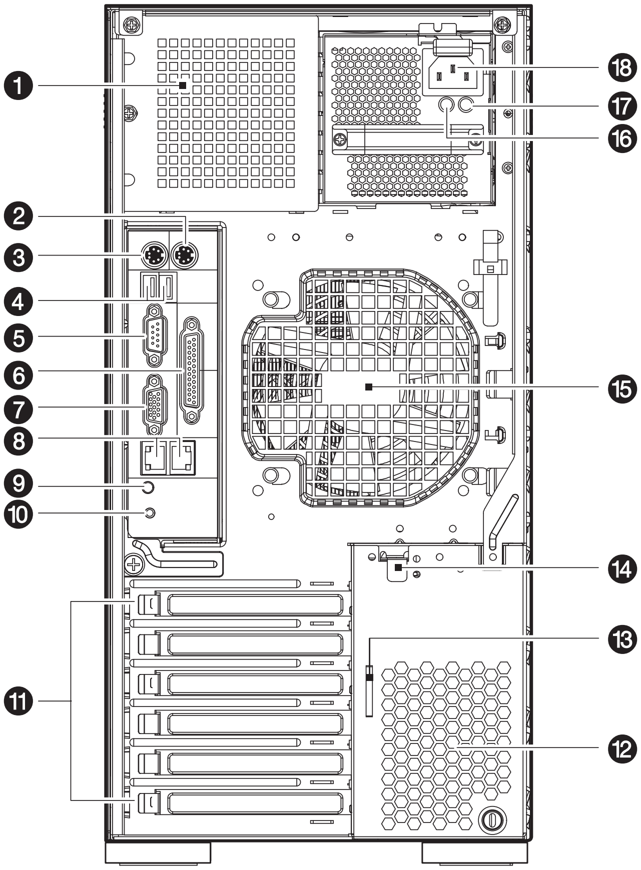
LED	Color	Status	Description
LAN1 and 2	Green	On	Network is established.
		Blinking	- Network activity. - Network is established and running at its supported speed.
		Off	Network link is not established.
Service ID button	Blue	On	Service ID button is pressed.

Hot-plug HDD LED indicators

Below table lists the possible disk drive states.

HDD Status	Power LED (Color)	Activity LED (Condition)	Description
HDD not present	None	Off	No HDD present
HDD present	Green	On	HDD activity
HDD failure	Amber	On	Internal HDD failure, replace HDD
HDD rebuild	Green	On	HDD rebuilding data
	Amber	Blinking	

Rear panel

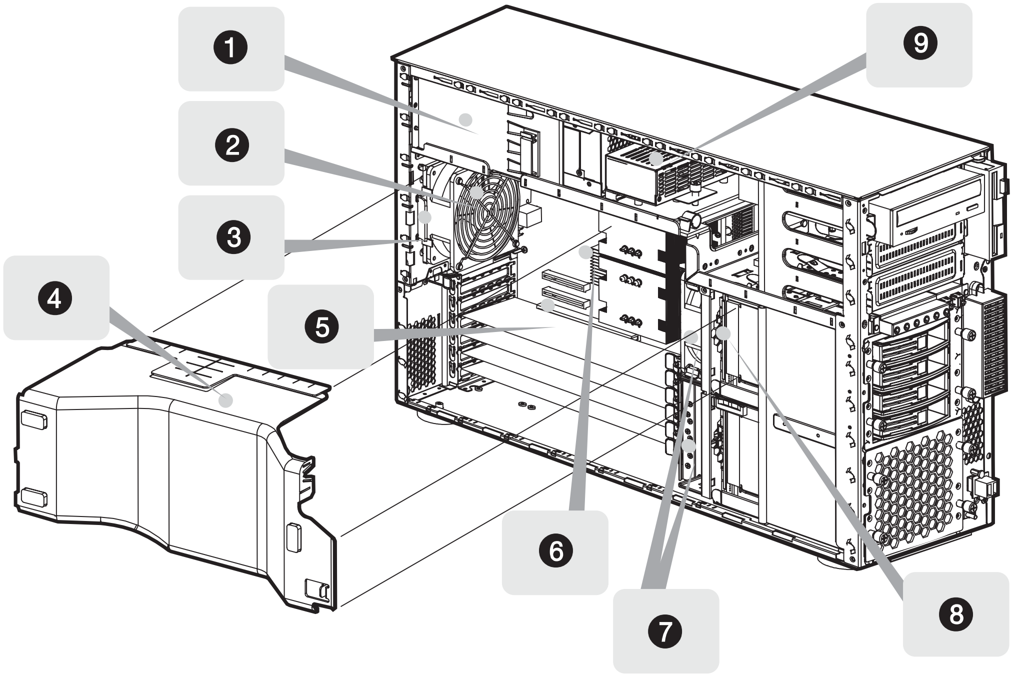


No.	Icon	Component	Description
1		Power supply module bay (empty)	Allows installation of a hot-swap redundant power supply module. **Note:** Though the system supports two hot-swap power supply module bays, the system comes bundled with only a single power supply module. You have the option to separately purchase an extra power supply module to provide the system with redundant power source.
2	🖱	PS/2 mouse port	Connects to a PS/2 mouse.
3	⌨	PS/2 keyboard port	Connects to a PS/2 keyboard.

No.	Icon	Component	Description
4		USB ports	Connects to USB devices.
5	|O|O|	Serial port	Connects to serial devices.
6	🖶	Parallel/printer port	Connects to parallel devices.
7	|O|O|/▭	VGA/monitor port	Connects to monitors.
8	🖧 1 🖧 2	Gigabit LAN ports (10/100/ 1000 Mbps)	Connects to network cables.
9		Service ID indicator	Indicates chassis ID status (blue).
10		Service ID button	Illuminates LEDs on both the front and rear of the server, simplifying identification of the server in a rack from the rear.
11		Expansion slots	For installing expansion cards.
12		Ventilation slots	For maintaining proper airflow condition inside the chassis. **Warning:** Be careful not to block the ventilation holes, as system overheating may occur.
13		Keyhole	A pair of system keys attached for unlocking the bezel door.
14		PCI slot lock lever	Secures the PCI card to the system.
15		Rear system fan	Optimizes system airflow.
16		Main power supply AC power indicator	Indicates the power supply status (green).

No.	Icon	Component	Description
17		Main power supply fail indicator	Indicates status of the the hot-swappable power supply module or any PSU (power supply unit) internal fan fault condition (amber).
18		Main power supply cable connector	Connects to the power cable.

Internal components



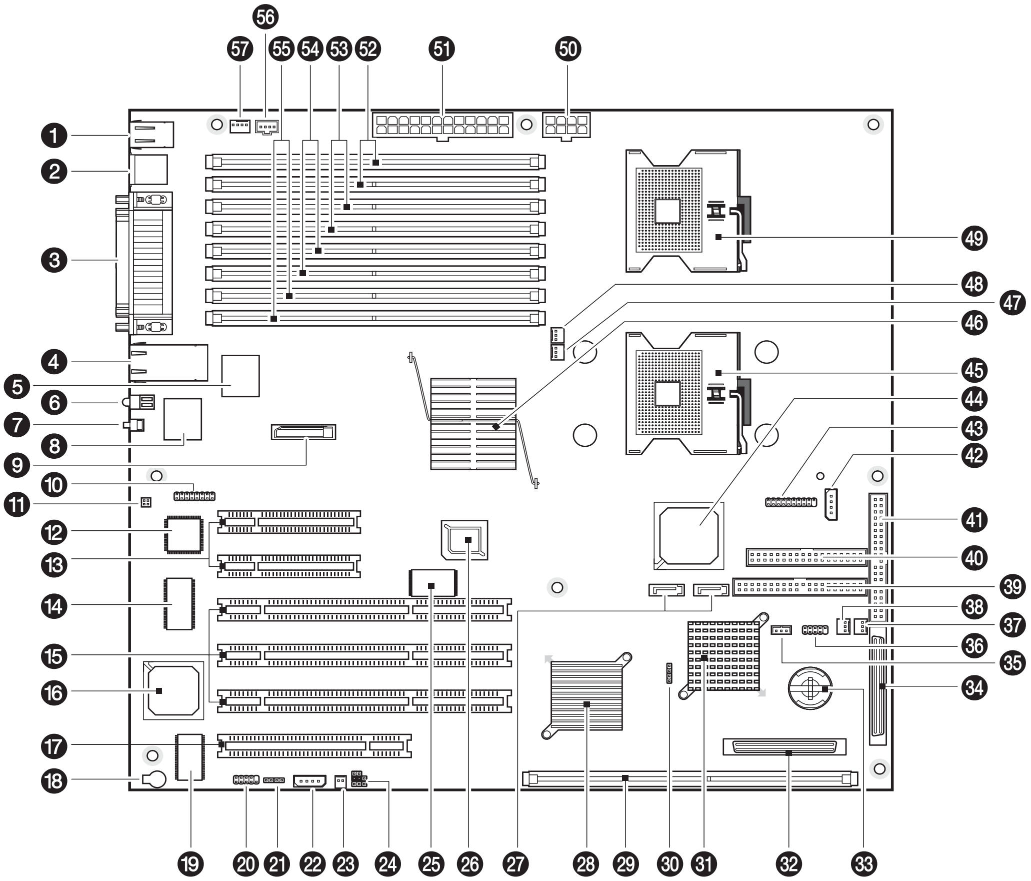
No.	Component	No.	Component
1	Power supply module (550-watts) [1]	6	Mainboard
2	Rear system fan	7	Easy-swap system fans
3	Rear system fan release latch	8	Four-bay hot-plug HDD cage backplane board
4	Air baffle	9	Power distribution board
5	PCI bus slot		

[1] Though the system supports two hot-swap power supply modules, the system comes bundled with a single 550-watt power supply module only. You have the option to purchase an extra power supply module to provide the system with a redundant power source.

System boards

Mainboard layout

The mainboard becomes accessible once you open the system. It should look like the figure shown below.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No.	Code	Description
1	J1	Top: PS/2 mouse port Bottom: PS/2 keyboard port
2	J2	USB 2.0 ports

No.	Code	Description
3	J10 J7 J13	Top: Parallel/printer port Bottom: Serial port Bottom: VGA/monitor port
4	J16	Gigabit LAN ports (RJ-45)
5	U7	Broadcom BCM5721 Gigabit chipset (LAN1)
6	D10	ID LED
7	S1	ID button
8	U10	Broadcom BCM5721 Gigabit chipset (LAN2)
9	J15	CMOS battery
10	D14 - D21	Port 80 BIOS self-diagnostic LED connector
11	JP17	BMC debug jumper
12	U24	BMC (Baseboard Management Controller)
13	J18, J20	PCI slots 5 and 6 (x4 PCI Express)
14	U45	Super I/O chipset
15	J23, J24, J26	PCI slots 2, 3 and 4 (PCI-X 64-bit/100 MHz)
16	U60	ATI Rage XL VGA chipset
17	J27	PCI slot 1 (PCI 32-bit/33 MHz)
18	BZ1	Buzzer
19	U68	VGA SDRAM chipset
20	JP26	Internal serial connector
21	J30	SCSI LED connector
22	JP24	IPMB (Intelligent Platform Management Bus) connector
23	JP25	Chassis intrusion connector

No.	Code	Description
24	JP27	Clear CMOS, Clear password and BIOS recovery jumper
25	U40	ROMB (RAID on motherboard) firmware chipset
26	J19	Flash ROM BIOS chipset
27	SATA 0 - SATA 1	Serial ATA connectors
28	U59	Intel IOP332 chipset
29	J29	DDR-I DIMM slot (for ROMB cache)
30	D40	SCSI status LED connector
31	U52	LSI 53C1030 SCSI chipset
32	J28	SCSI Channel B connector
33	JP23	Altos RAID-enabler (iButton) socket
34	J25	SCSI Channel A connector
35	JP22	ePanel connecter
36	JP21	Front USB connectors
37	JP20	Front system fan 0 connector
38	JP19	Front system fan 1 connector
39	JP4	Secondary IDE connector
40	JP14	FDD connector
41	JP15	Primary IDE connector
42	JP12	SCSI backplane management cable connector
43	JP13	Front panel LED connectors
44	U26	Intel 82801ER chipset
45	J17	CPU 2 socket

No.	Code	Description
46	U8	Intel E7520 MCH (Memory Controller Hub) chipset
47	JP9	CPU 2 fan connector
48	JP8	CPU 1 fan connector
49	J6	CPU 1 socket
50	JP5	CPU power connector
51	JP1	Power supply connector
52	J3 and J4	DIMM 1B to 1A sockets
53	J5 and J8	DIMM 2B to 2A sockets
54	J9 and J11	DIMM 3B to 3A sockets
55	J12 and J14	DIMM 4B to 4A sockets
56	JP2	PSDB (Power supply distribution board) connector
57	JP31	Rear system fan connector

Jumper settings

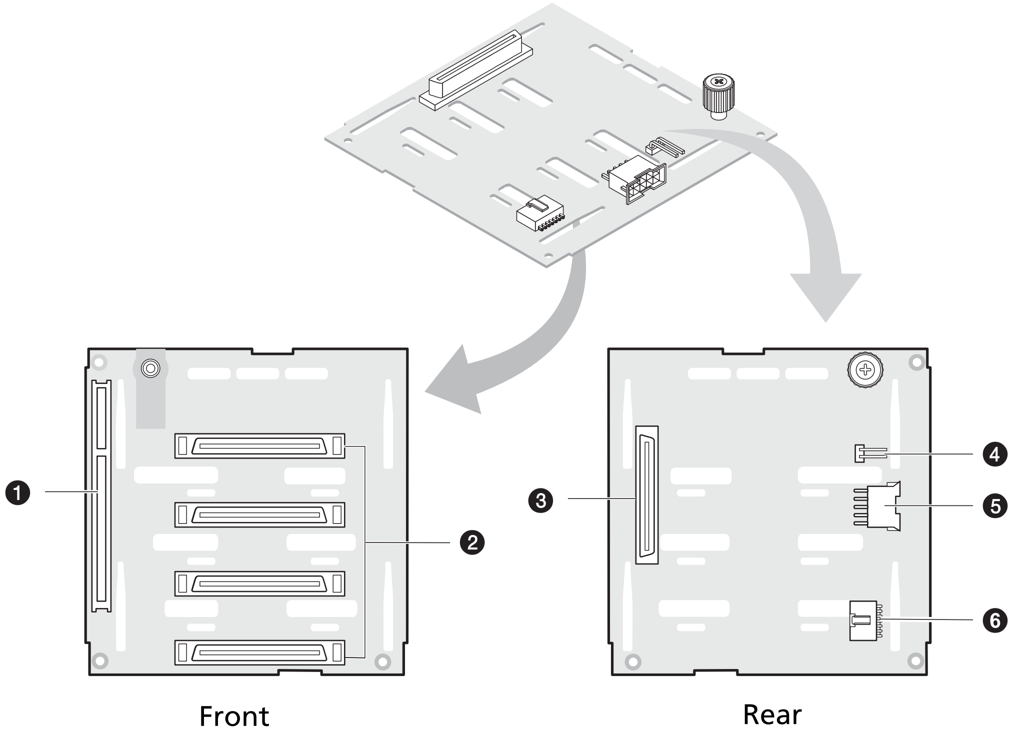
The table below lists the mainboard jumper settings.

Jumper	Setting	Function
JP27	1-2 3-4 5-6	Clear CMOS settings Clear password settings Enable BIOS recovery
JP17	1-2 3-4	BMC diagnostics settings BMC recovery settings
JP13		HDD LED LAN1 activity LED LAN2 activity LED Power LED Power button Reset button

Backplane layout

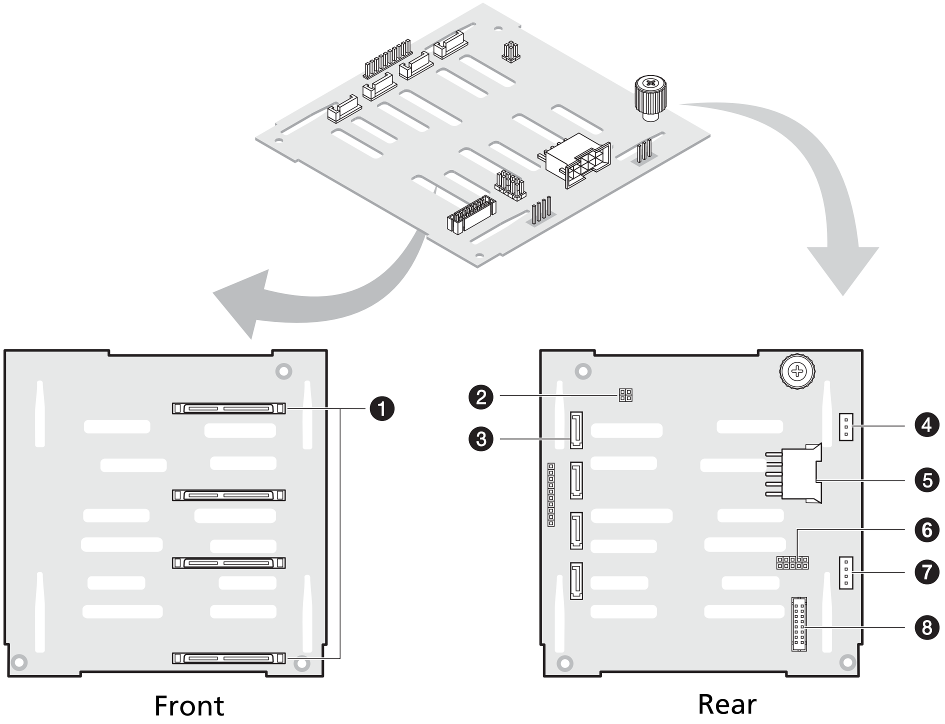
The backplane attached to the four-bay hot-plug HDD cage provides a convenient interface between the SCSI or SATA drives and the mainboard.

SCSI backplane layout



No.	Description
1	120-pin SAF-TE connector
2	80-pin SCSI data cable connectors
3	68-pin SCSI data cable connector
4	J1 Backplane jumper header
5	SCSI power cable connector
6	SCSI HDD management cable connector (I^2C bus)

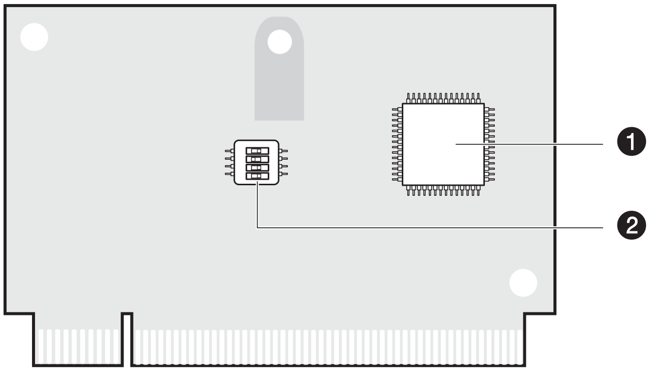
SATA backplane layout



No.	Code	Description
1		SATA HDD connectors
2	J15	SAF-TE heartbeat LED and Manufacturing function jumper
3		SATA data cable connector
4	JP3	SAF-TE connector
5	JP2	10-pin power cable connector
6	J5	Backplane setup header
7	J11	SATA cage management cable connector (I^2C bus)
8	J14	Backplane peering cable connector

SAF-TE board layout

The SAF-TE board connects to the HDD cage's backplane. It monitors the backplane's temperature and voltage condition and the status of the SCSI hard drives.



No.	Description
1	GEM 318p SAF-TE chipset
2	Configuration switch

SAF-TE configuration settings (SW1)

The SAF-TE board's pre-assigned ID is SCSI ID 6. The table below shows the board's configuration settings.

Switch	Description	Switch	Description
Switch 1	Off	Switch 3	On
Switch 2	Off	Switch 4	Off

2 System setup

This chapter gives you instructions on how to set up your system. Procedures on how to connect peripherals are also explained.

Setting up the system

Preinstallation requirements

Selecting a site

Before unpacking and installing the system, select a suitable site for the system for maximum efficiency. Consider the following factors when choosing a site for the system:

- Near a grounded power outlet
- Clean and dust-free
- Stable surface free from vibration
- Well-ventilated and away from sources of heat
- Secluded from electromagnetic fields produced by electrical devices such as air conditioners, radio and TV transmitters, etc.

Checking the package contents

Check the following items from the package:

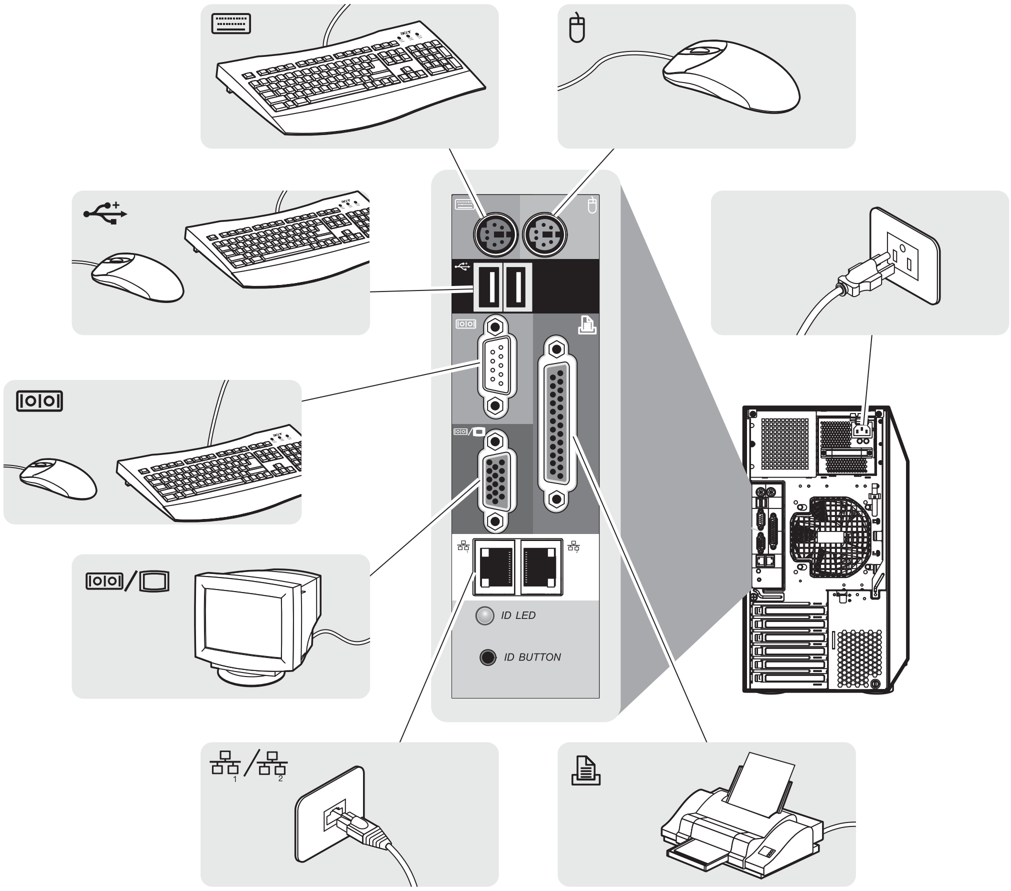
- Acer Altos G710 system
- Acer Altos G710 User's Guide
- Acer EasyBUILD™
- Acer Altos G710 accessory box
- System keys (attached to the rear panel of the system)

If any of the above items are damaged or missing, contact your dealer immediately.

Save the boxes and packing materials for future use.

Connecting peripherals

Refer to the illustration below for specific connection instructions on the peripherals you want to connect to your system.



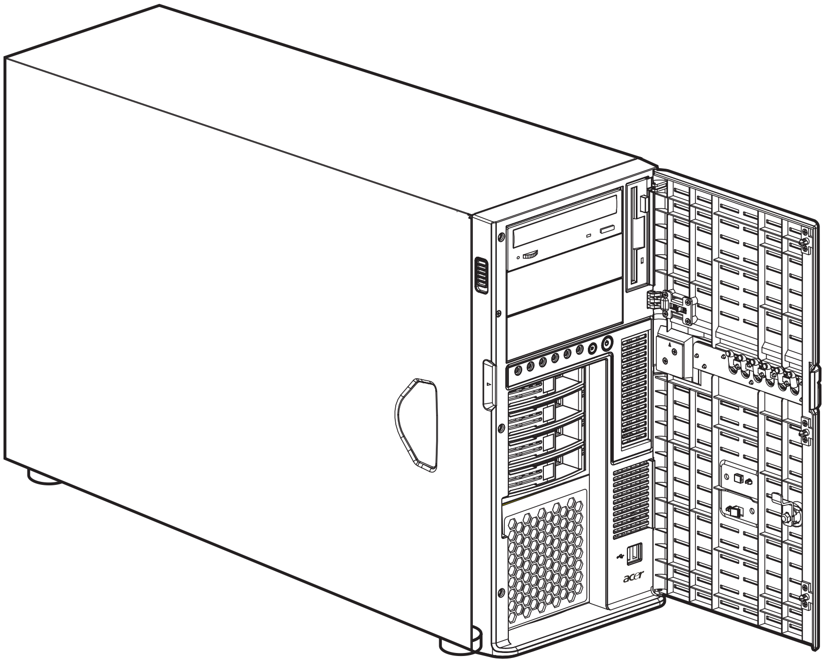
Note: Consult the operating system manual for information on how to configure the network setup.

Turning on the system

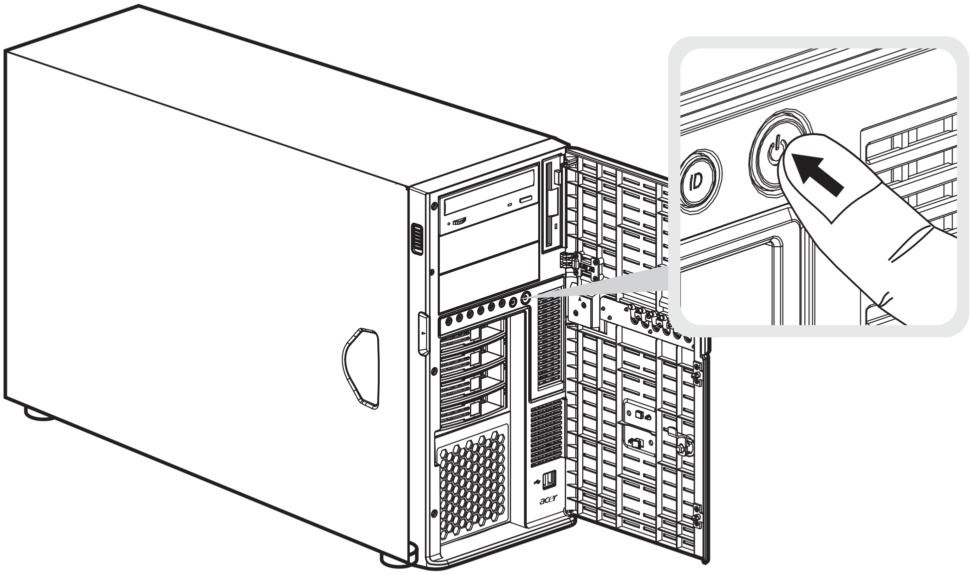
After making sure that you have properly set up the system and connected all the required cables, you can now power on the system.

To power on the system:

1 Open the bezel door.



2 Press the power button.



The system starts up and displays a welcome message on the monitor and ePanel LCD display (Refer to “Appendix D: ePanel” on page 163 for more information on how to use the ePanel.). After that, a series of power-on self-test (POST) messages appears. The POST messages indicate if the system is running well or not.

Note: If the system does not turn on or boot after pressing the power button, go to the next section for the possible causes of the boot failure.

The ePanel module is not included with your system. To purchase an ePanel module, contact your local Acer representative or order directly from http://www.acer.com/.

Aside from the POST messages, you can determine if the system is in good condition by checking if the following occurred:

- Power indicator on the front panel lights up (green)
- Num Lock, Caps Lock, and Scroll Lock indicators on the keyboard light up

Power-on problems

If the system does not boot after you have applied power, check the following factors that might have caused the boot failure.

- The external power cable may be loosely connected.

  Check the power cable connection from the power source to the power cable socket on the rear panel. Make sure that the cable is properly connected to the power source and to the power cable socket.

- No power comes from the grounded power outlet.

  Have an electrician check your power outlet.

- Loose or improperly connected internal power cables.

  Check the internal cable connections. If you are not confident to perform this step, ask a qualified technician to assist you.

Warning! Make sure all power cords are disconnected from the electrical outlet before performing this task.

Note: If you have gone through the preceding actions and the system still fails to boot, ask your dealer or a qualified technician for assistance.

Configuring the system OS

The Altos G710 comes with Acer EasyBUILD™ that allows you to conveniently install your choice of operating system. To start using EasyBUILD, follow the steps below.

1. Locate the EasyBUILD System CD included in the system package.
2. With your system turned on, gently press the CD-ROM drive Stop/Eject button.
3. When the disc tray slides open, insert the EasyBUILD System CD with the label or title side of the disc facing upward.

    Note: When handling the disc, hold it by the edges to avoid smudges or fingerprints.

4. Gently press the disc down to make sure that it is properly inserted.

    Caution! While pressing the disc, be careful not to bend the disc tray. Make sure that the disc is properly inserted before closing the disc tray. Improper insertion may damage both the disc and the CD-ROM drive.

5. Gently press the drive Stop/Eject button again to close the disc tray.
6. The Acer EasyBUILD sequence begins. Follow all onscreen instructions.

For more information, refer to the EasyBUILD Installation guide.

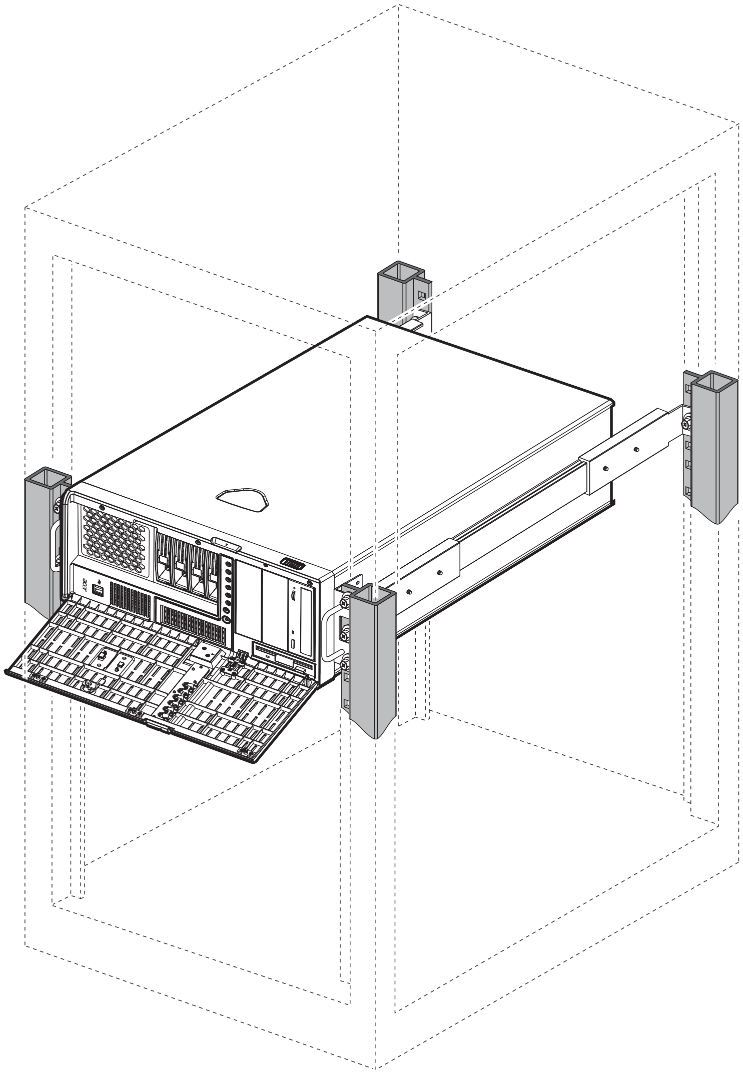
Note: EasyBUILD System CD supports Windows 2000, Windows Server 2003 and Red Hat Linux operating system only.

Windows or Linux OS CD is needed when you install the OS with the EasyBUILD System CD.

Server setup

Aside from its tower configuration, the Altos G710 server system can also be mounted in a rack-model position. A rack mount kit is available for customers who want to convert a tower-mounted system to rack-model design. To purchase a rack mount kit, contact your local Acer representative or order directly from http://www.acer.com/.

The figure below shows the Altos G710 server in a rack-mount position.



For instructions on tower-to-rack configuration, refer to “Appendix B: Acer Altos G710 rack installation guide” on page 141.

Turning off the system

There are two ways by which you can turn off the server. These include:

- To turn off the system from Windows

  To turn off the server, on the Windows taskbar click on the **Start** button, point to **Shut Down...**, select **Shut down** from the drop-down window then click on **OK**. You can then turn off all peripherals connected to your server.

  If you cannot shut down the server, press the power button for at least four seconds. Quickly pressing the button may put the server in a Suspend mode only.

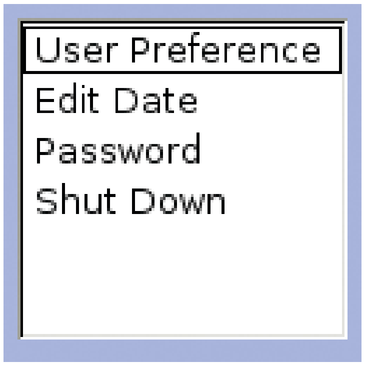
- To turn off the system from the ePanel LCD display

Important: The system cannot be turned off from the ePanel LCD display when it is running in Safe Mode.

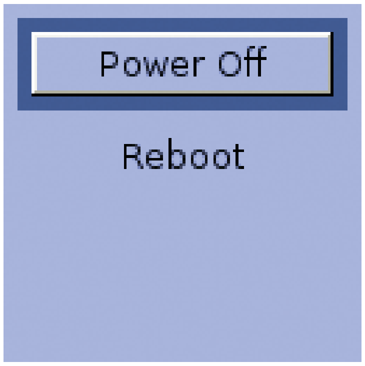
Note: You must install related ePanel software before you can use ePanel. For more information refer to “Appendix D: ePanel” on page 163.

ePanel runs only on Microsoft Windows 2000 and Windows Server 2003 platform.

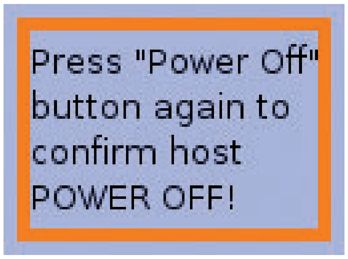
(1) Use the Navigation key to select Setting on the configuration menus screen, then press the Navigation key.



(2) Select Shut Down. The following screen appears.



(3) Select Power Off, then press the Navigation key. The *`Press Power Off button again to confirm host POWER OFF!`* message appears.



Press "Power Off" button again to confirm host POWER OFF!

(4) Press the Navigation key to shutdown the system.

Note: The ePanel module is not included with your system. To purchase an ePanel module, contact your local Acer representative or order directly from http://www.acer.com/.

3 System upgrade

This chapter discusses the precautionary measures and installation procedures you need to know when upgrading the system.

Installation precautions

Before you install any server component, we recommend that you read the following sections. These sections contain important ESD precautions along with preinstallation and post-installation instructions.

ESD precautions

Electrostatic discharge (ESD) can damage your processor, disk drives, expansion boards, motherboard, memory modules and other components. Always observe the following precautions before you install a server component:

1. Do not remove a component from its protective packaging until you are ready to install it.
2. Wear a wrist grounding strap and attach it to a metal part of the server before handling components. If a wrist strap is not available, maintain contact with the server throughout any procedure requiring ESD protection.

Preinstallation instructions

Always observe the following before you install any component:

1. Turn off the system and all the peripherals connected to it.
2. Unplug all cables from the power outlets.
3. Place the system unit on a flat, stable surface.
4. Open the system according to the instructions on page 41.
5. Remove the air baffle.
6. Follow the ESD precautions described in this section when handling a server component.
7. Remove any expansion board(s) or peripheral(s) that block access to the DIMM slots or other component connector.

See the following sections for specific installation instructions on the component you want to install.

Warning! Failure to properly turn off the server before you start installing components may cause serious damage. Do not attempt the procedures described in the following sections unless you are a qualified service technician.

Post-installation instructions

Observe the following after installing a server component:

1. See to it that all components are installed according to the described step-by-step instructions.
2. Reinstall any expansion board(s) or peripheral(s) that you have previously removed.
3. Reinstall the air baffle.
4. Reinstall the chassis panels.
5. Connect the necessary cables.
6. Turn on the system.

Opening the server

Caution! Before you proceed, make sure that you have turned off your system and all peripherals connected to it. Read the "Preinstallation instructions" on page 39.

You need to open the server before you can install additional components. The bezel and left side panel are removable to allow access to the system's internal components. Refer to the following sections for instructions.

Opening the bezel door

A security lock secures the bezel door to protect your system unit against unauthorized access.

To open the bezel door:

1 Insert the key into the lock and turn it clockwise until it points to the unlock icon 🔓.

2 Pull open the bezel door.

Removing the bezel door

The bezel door is attached to the chassis by screwless hinges.

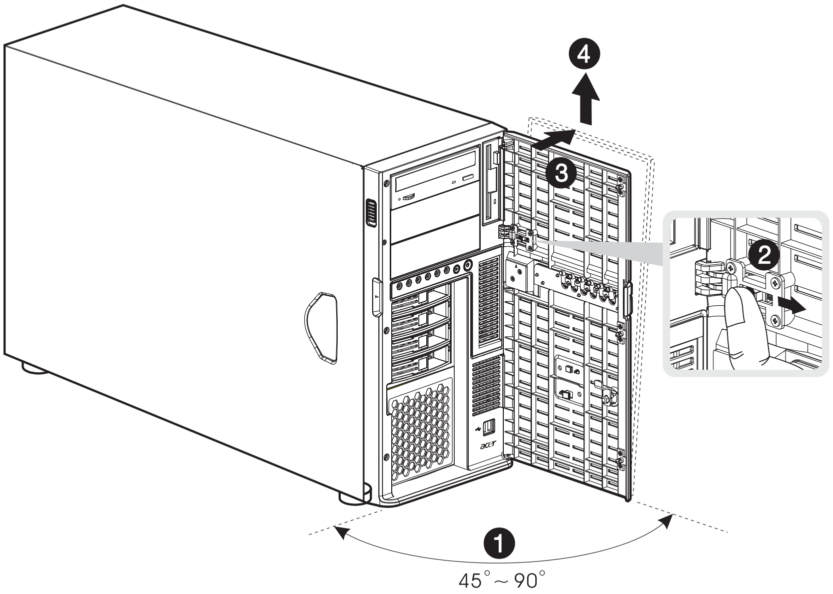
To remove the bezel door:

1 Unlock the bezel door with the key (when necessary).

2 Open it to a 45° — 90° angle **(1)**.

3 Press the release switch **(2)**.

4 Tilt to the right **(3)**, pull it up **(4)** then move it away from the chassis.

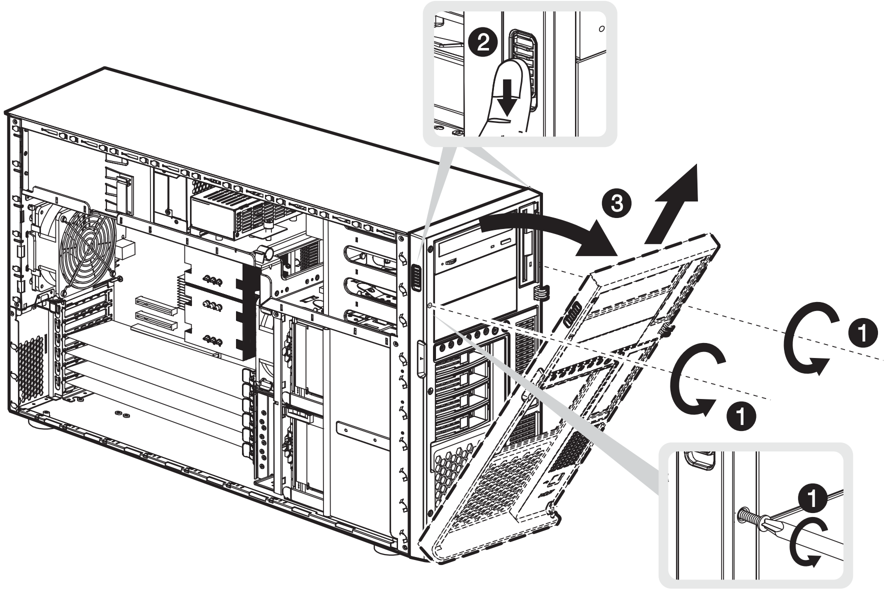


Removing the bezel

1 Loosen the two thumbscrews on the bezel **(1)**.

2 Simultaneously depress the plastic retention tabs to release the latches **(2)**.

3 Pull down the cover to a 45° angle, then gently detach it from the chassis **(3)**.



Removing the left-side panel

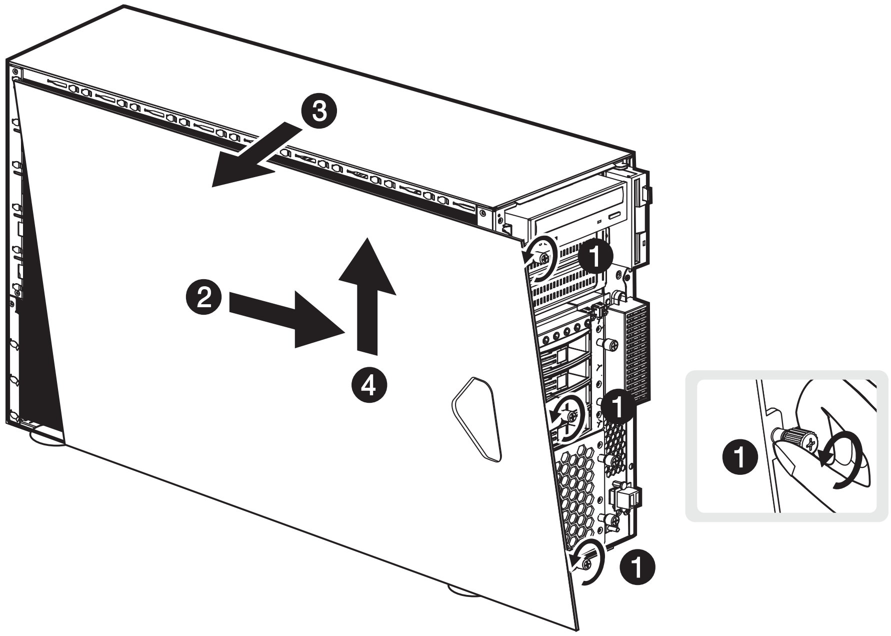
1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Remove the bezel door and the bezel.

Refer to the preceding sections for detailed instructions.

3 Loosen the three thumbscrews located at the end of the side panel closest to the front panel **(1)**.

4 Slide the side panel slightly forward **(2)**, then tilt it outward **(3)** and upward **(4)** before detaching it from the chassis.



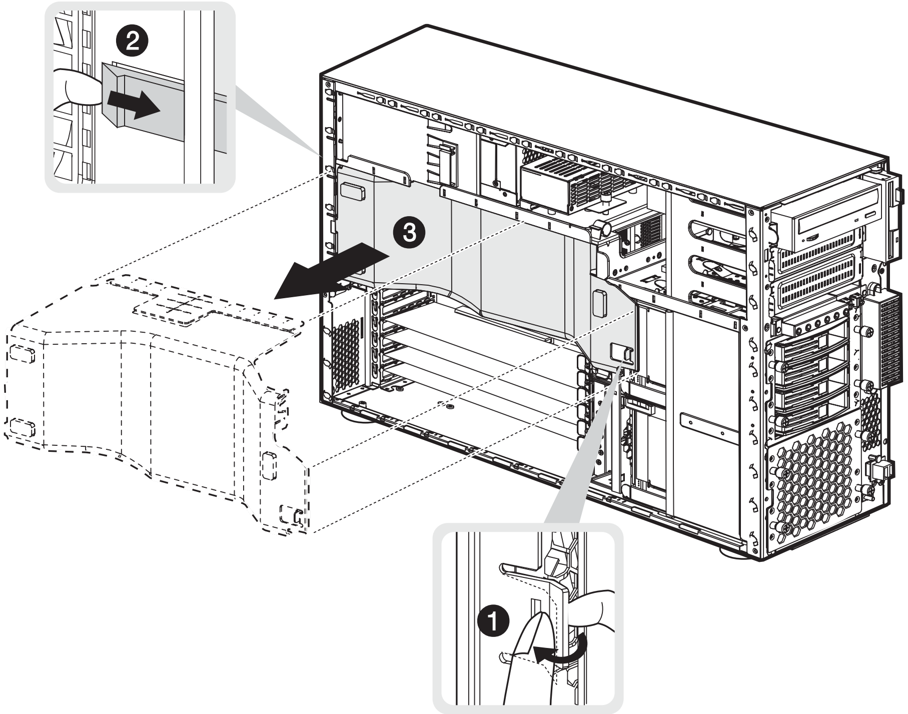
Removing the air baffle

Once you remove the left-side panel, most of the system's internal components are still hidden from view by the air baffle. Remove the air baffle to allow easy access to the system components.

Follow the steps below to remove the air baffle:

1 Press the release latch on the right **(1)** and left **(2)** side of the air baffle.

2 Pull out the air baffle to remove it from the chassis **(3)**.



Caution! After completing the component upgrade/replacement procedures, do not forget to reinstall the air baffle before replacing the chassis panels. Doing otherwise will reduce the system's cooling efficiency which can adversely affect performance or cause damage due to overheating.

Configuring the four-bay hot-plug HDD cage

This section explains how to install a four-bay hot-plug HDD cage as well as procedures on how to install a hard disk into the cage's hard disk carrier.

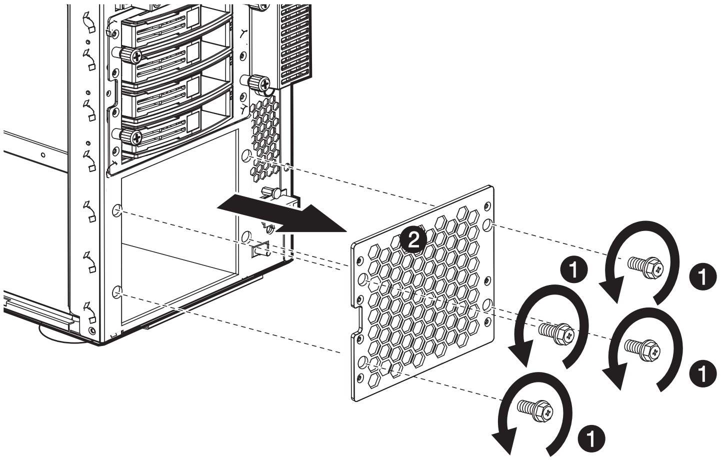
The Altos G710 consists of two HDD bays that accept two four-bay hot-plug SCSI or SATA HDD cages. The system comes bundled with only a single four-bay hot-plug SCSI or SATA HDD cage leaving one bay empty. You have the option to purchase an extra cage to provide your system with massive storage capacity and scalability.

Installing the four-bay hot-plug SCSI HDD cage

The system's dual channel configurations support four SCSI hard drives per channel (A or B) configuration. You can connect the new HDD cage's SCSI cable to the channel B connector. Refer to "Mainboard layout" on page 17 for the location of the Channel B connector.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Remove the four screws that secure the cover of the empty HDD bay **(1)**, then detach the cover **(2)**.



3 Install the hot-plug cage by following the steps below:

   (1) Insert the hot-plug cage into the housing with the backplane facing the rear of the chassis.

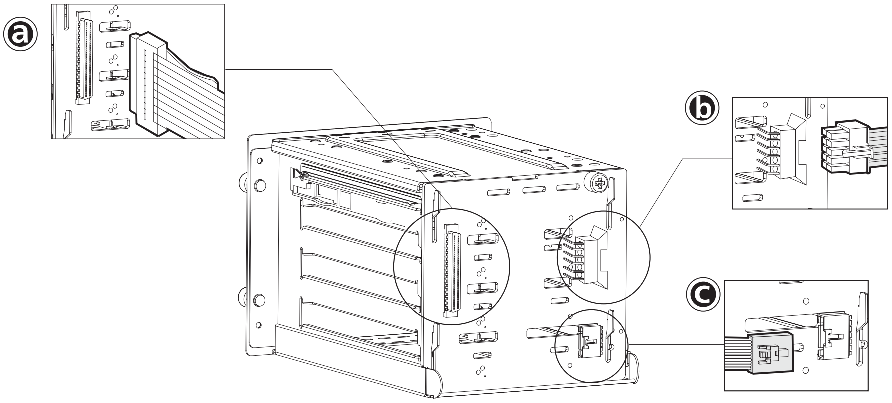
(2) Locate and attach the following cables clamped on the side of the chassis to their corresponding connectors on the SCSI backplane:

Important: If a four-bay hot-plug SCSI HDD cage is already installed in the top HDD bay, you must block the J1 jumper. Set pins 1 and 2 to close.

(a) SCSI data cable

(b) SCSI HDD power cable

(c) SCSI HDD management cable



(3) Tighten the four thumbscrews to secure it to the chassis.

4 Observe the post-installation instructions described on page 40.

Important: When you are detaching the hot-plug cage from the chassis, make sure to first remove all hard disks from their carriers. For instructions, refer to the succeeding section.

5 Change the RAID configuration of your hard disk. For details on how to change the RAID configuration of your hard disk, go to “Appendix C: SCSI RAID configuration” on page 157.

Installing the four-bay hot-plug SATA HDD cage

Note: Before installing a SATA HDD cage in your system, make sure you install a SATA RAID controller. The SATA RAID controller must be compatible with your system and OS, and appropriate drivers must also be installed according to the RAID controller manufacturer's installation instructions. Refer to "Installing an expansion card" on page 69 and for instructions on how to install the RAID controller into the PCI slot.

To purchase a SATA RAID controller, contact your local Acer representative or order directly from http://www.acer.com/.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Remove the four screws that secure the cover of the empty HDD bay, then detach the cover.

3 Insert the hot-plug cage into the housing with the backplane facing the rear of the chassis, then tighten the four thumbscrews to secure the cage to the chassis.

Important: If a four-bay hot-plug SCSI HDD cage is already installed in the top HDD bay, you must configure the J5 jumper settings on the SATA backplane. Refer to step **(1)** illustrated on page 48.

4 Connect the following cables to their corresponding connectors on the SATA RAID backplane, mainboard and adapter:

(1) Attach the SATA data cable to the SATA HDD connector on the backplane **(2)**, then connect the other end of the cable to the SATA connector on the RAID controller.

Note: SATA connectors on the controller are keyed. Make sure the SATA data cables are properly connected to its corresponding connectors on the SATA RAID controller.

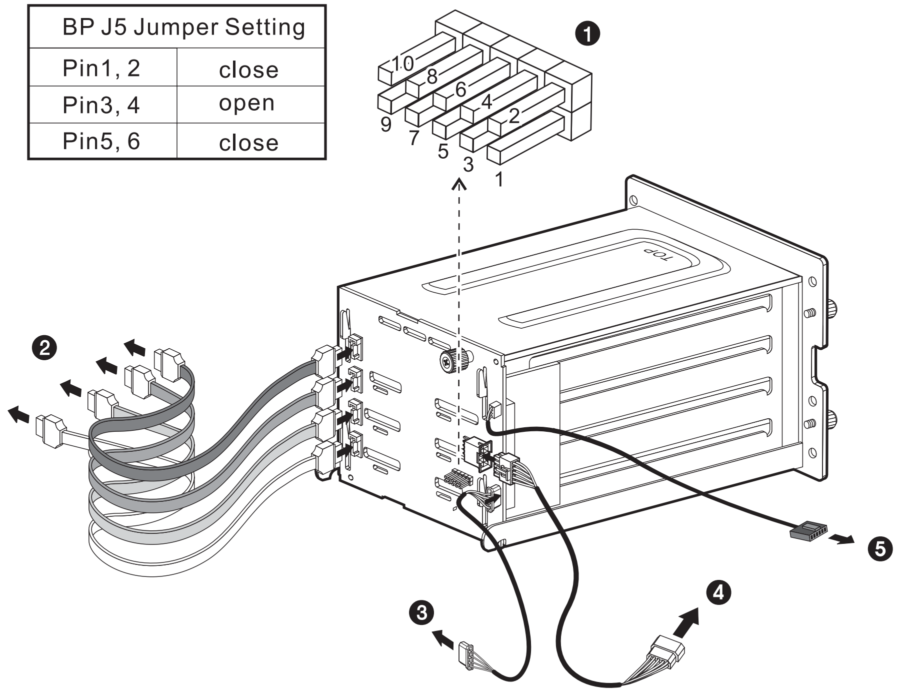
(2) Attach the SATA cage management cable to the J11 connector on the backplane **(3)**, then connect the other end of the cable to the JP24 connector on the mainboard.

(3) Attach the system’s power cable to the SATA power cable connector on the backplane **(4)**.

(4) Attach the SATA backplane SAF-TE cable to the JP3 connector on the backplane **(5)**, then connect the other end of the cable to the I^{2}C connector on the RAID controller.

Refer to the illustration below when installing the SATA backplane, or removing and replacing the cables.

Note: The SATA RAID backplane data cables must be installed and removed in the following order: SATA0, SATA1, SATA2, and SATA 3.



BP J5 Jumper Setting	
Pin1, 2	close
Pin3, 4	open
Pin5, 6	close

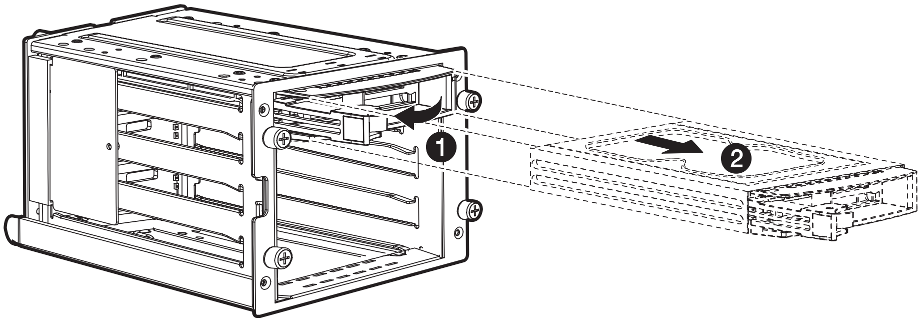
5 Observe the post-installation instructions described on page 40.

Important: When you are detaching the hot-plug cage from the chassis, make sure to first remove all hard disks from their carriers. For instructions, refer to the succeeding section.

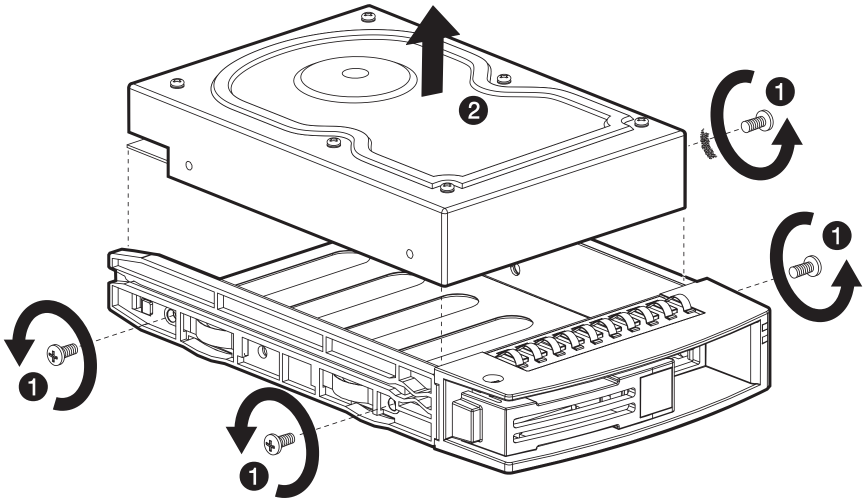
Installing a hard disk into the four-bay hot-plug HDD cage carrier

Note: You need not remove the four-bay hot-plug HDD cage from the chassis to install a hard disk into its carrier.

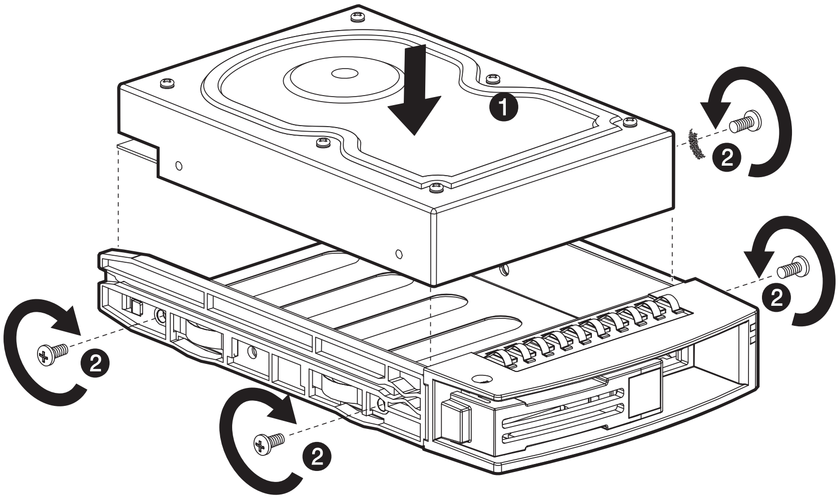
1 Press your finger to the drive release lever **(1)**, then pull out the hard disk carrier from the cage **(2)**.



2 Remove the four screws to open the hard disk carrier **(1)**, then remove the hard disk **(2)**. Keep the screws for later use.



3 Install a hard disk on the hard disk carrier **(1)**, then secure it with the four screws you have removed earlier **(2)**.



4 Insert the hard disk carrier into the cage with the lever still extended.

5 Push the lever back until it clicks into place. Make sure that the drive is properly inserted before closing the lever.

Replacing storage devices

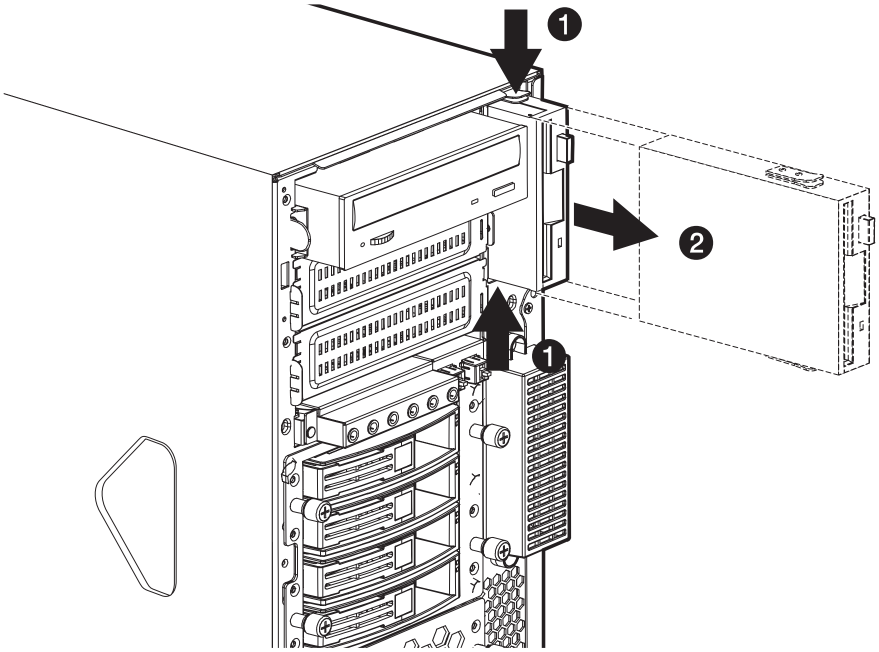
The system supports one 3.5-inch and three 5.25-inch internal storage devices. The system comes pre-installed with a floppy drive and a CD-ROM drive. The two empty 5.25-inch drive bays allow you to install additional drives such as another CD-ROM drive or a tape drive. These provide the system with additional storage capacity.

Replacing the FDD

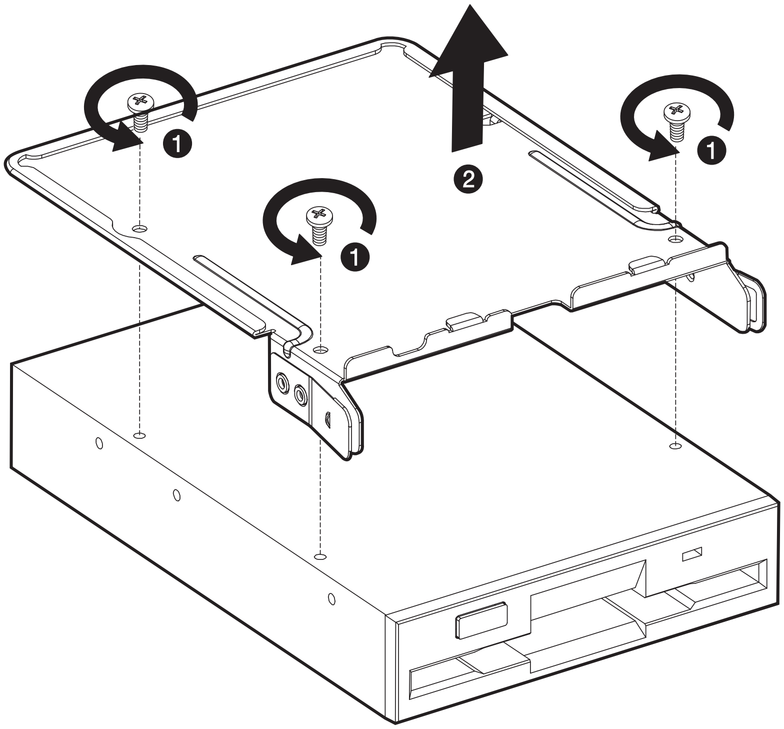
1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Disconnect the IDE and FDD cables from the old drive.

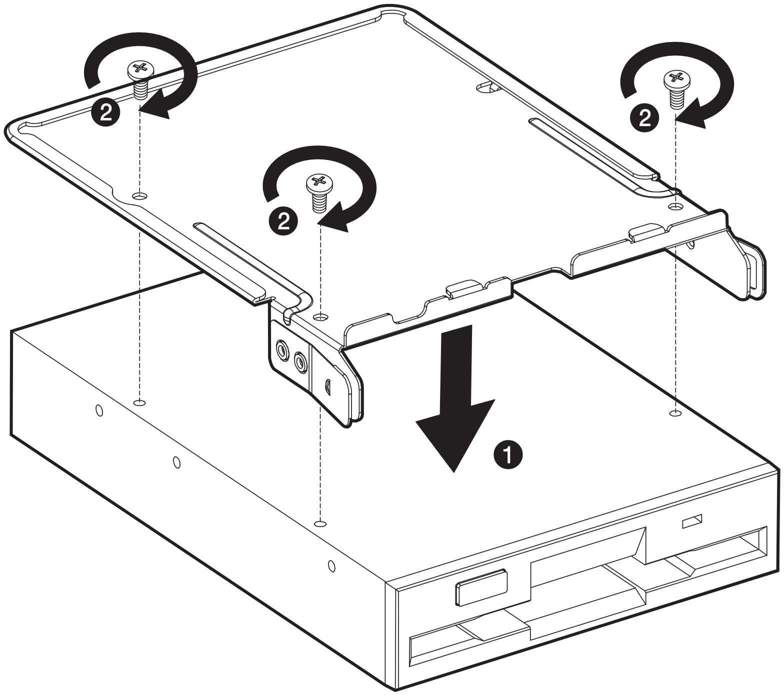
3 Press the release bracket on both sides of the drive carrier **(1)** before pulling it out from the chassis **(2)**.



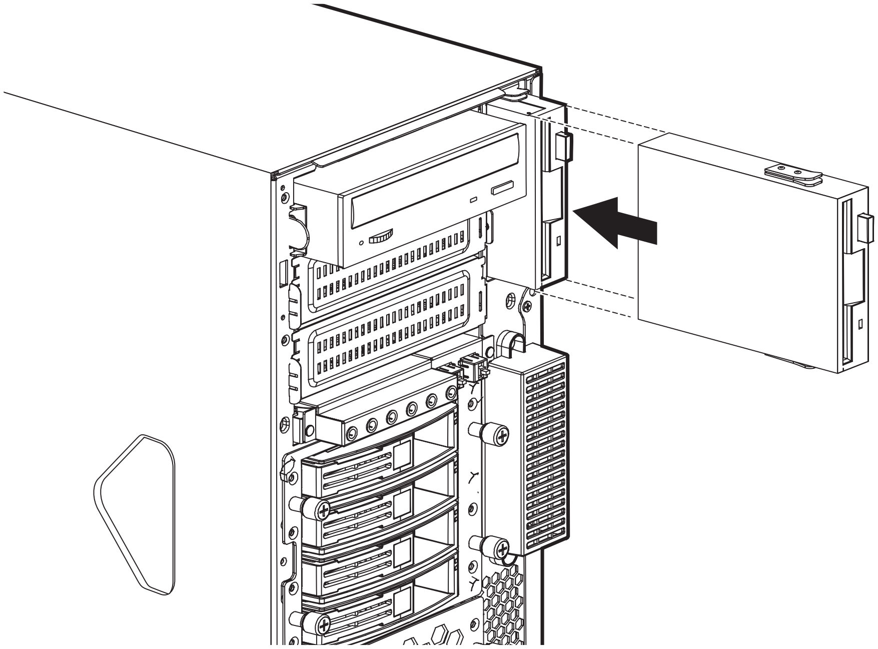
4 Remove the three screws that hold the old drive to the drive carrier **(1)** then pull it out **(2)**.



5 Install a new FDD to the drive carrier **(1)**, then secure it with the three screws you have removed earlier **(2)**.



6 Insert the drive carrier with the newly-installed FDD into the drive bay.



7 Connect the IDE and FDD cables to the new drive.

8 Observe the post-installation instructions described on page 40.

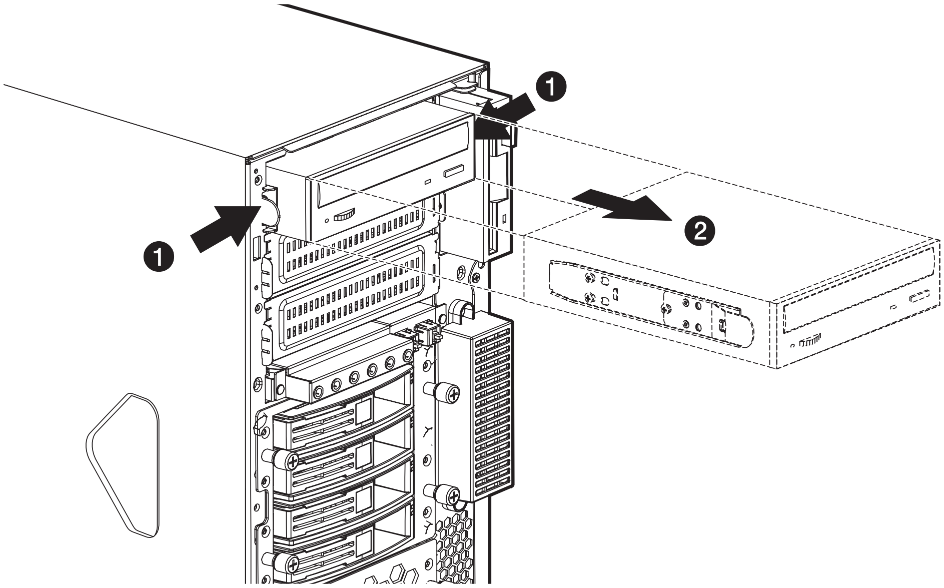
Replacing the CD-ROM drive

Note: If you are installing a new drive in an empty drive bay, skip steps 2 to 4.

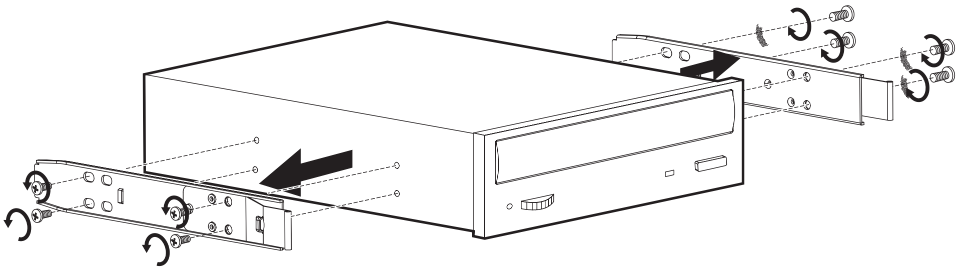
1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Disconnect the power and IDE cables from the old drive.

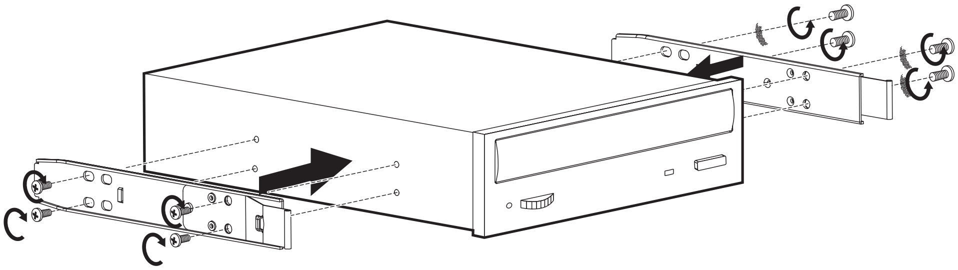
3 Press the release bracket on both sides of the drive carrier **(1)** before pulling it out from the chassis **(2)**.



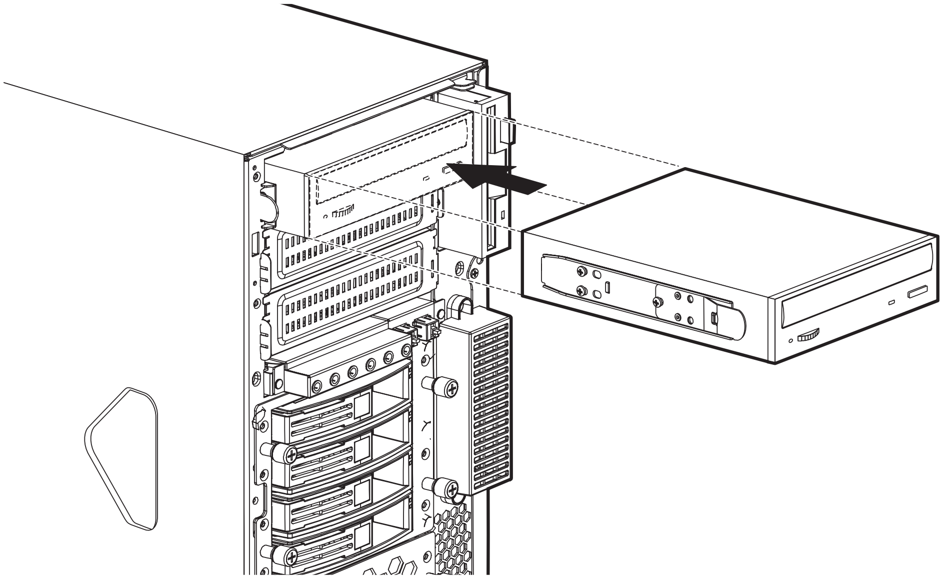
4 Remove the eight screws that hold the old drive to the drive carrier then pull it out.



5 Install a new 5.25-inch drive to the drive carrier then secure it with the eight screws you have removed earlier.



6 Insert the drive carrier with the newly-installed 5.25-inch drive into the drive bay.



7 Connect the power and IDE cables to the new drive.

8 Observe the post-installation instructions described on page 40.

Upgrading the CPU

This section includes instructions for installing and removing a CPU and heatsink assembly.

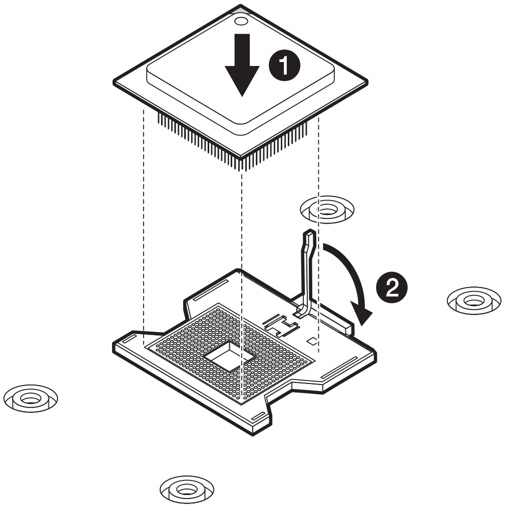
Installing the heatsink and CPU

The mainboard supports dual FC-mPGA4 (Flip Chip Micro Pin Grid Array) 604 processor socket for Intel® Xeon™ processors. The system comes bundled with only a single Intel Xeon processor leaving one CPU socket empty. You have the option to purchase an extra CPU for your system.

Important: Before you install a new CPU, make sure that you are using the same type of CPU's with identical stepping and running at the same frequency.

1. Observe the ESD precautions and pre-installation procedures described on page 39.
2. Locate the CPU socket on the mainboard.
3. Pull the CPU socket retainer lever to the fully open, upright position.
4. Remove the CPU from its protective packaging.
5. Align the CPU to its socket, making sure that pin 1 (indicated by the notched corner) of the CPU connects to hole 1 of the socket (on the bottom right corner).
6. Insert the CPU into the socket **(1)**.

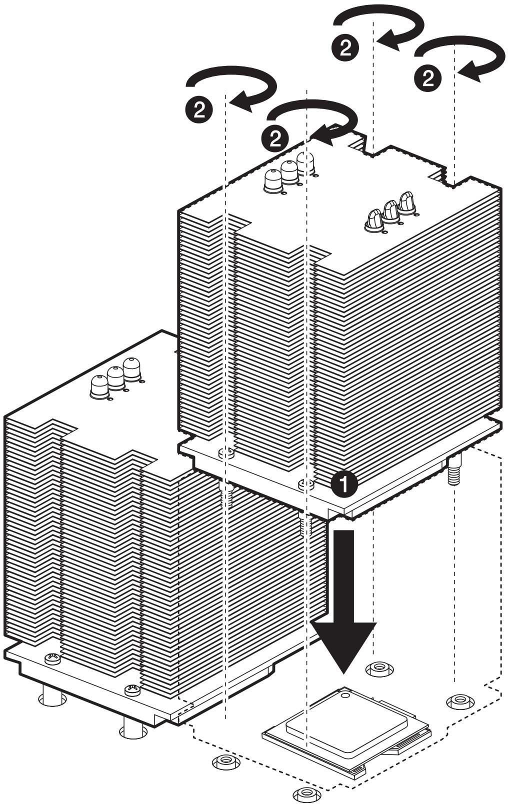
Press down the retainer lever to lock the CPU in place **(2)**.



7 Apply approximately 0.1ml of the thermal grease to the top of the CPU.

8 Align the heatsink on top of the CPU **(1)**.

9 Using the screwdriver, tighten the heatsink's four screws to secure it to the mainboard **(2)**.



10 Connect the CPU fan cable to the CPU fan (0 or 1) connector on the mainboard. Refer to “Mainboard layout” on page 17 for the location of the CPU fan connector.

11 Observe the post-installation instructions described on page 40.

Removing the heatsink and CPU

Important: Before removing a CPU from the mainboard, make sure to create a backup file of all important data.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

Warning! The heatsink becomes very hot when the system is on. NEVER touch the heatsink with any metal or with your hands.

2 Loosen the four screws that hold the heatsink to the mainboard **(1)**.

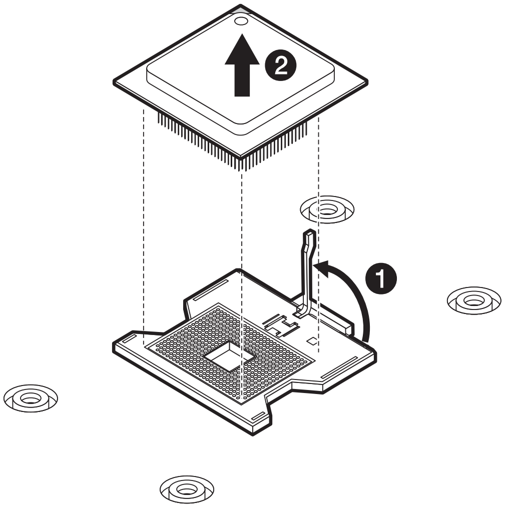
3 Pull out the heatsink from the CPU **(2)**. Place the heatsink upside down on a flat surface to prevent thermal grease from contaminating other components.

Note: Wipe off the thermal grease from both the heatsink and CPU using an alcohol pad.

4 To detach the CPU from its socket, follow the steps below:

(1) Pull the CPU socket retainer lever to the fully open, upright position **(1)**.

(2) Pull out the CPU from the socket **(2)**.



Upgrading the system memory

This section includes instructions for removing and installing a memory module.

Altos G710 supports DDR2 400 Registered ECC memory modules. DDR2 400 memory is a new type of memory module providing better performance using less power, at 1.8 volts, than conventional DDR1 memory. DDR2 400 memory modules have 240-pin DIMM modules and are not backward-compatible with DDR1.

The Altos G710 provides eight DDR2 DIMM slots in dual memory channels. DIMM 1A, 2A, 3A and 4A are connected to memory channel A. DIMM 1B, 2B, 3B, and 4B are connected to memory channel B. The maximum memory capacity is 16 GB DDR2 400 memory. Memory DIMM technologies supports 512 MB, 1 GB or 2 GB memory modules.

Note: You should always install the DDR2 memory module in the DDR2 DIMM slots. Wrong installation may cause damage to the mainboard. Contact your dealer for qualified DDR2 DIMM vendors.

DIMM 1B	DIMM 1A	DIMM 2B	DIMM 2A	DIMM 3B	DIMM 3A	DIMM 4B	DIMM 4A	Memory Interleave
512 MB								1-way
1 GB								1-way
2 GB								1-way
512 MB	512 MB							2-way
1 GB	1 GB							2-way
2 GB	2 GB							2-way
512 MB	512 MB	512 MB	512 MB					2-way
1 GB	1 GB	1 GB	1 GB					2-way
2 GB	2 GB	2 GB	2 GB					2-way
512 MB	512 MB	512 MB	512 MB	512 MB	512 MB			2-way
1 GB	1 GB	1 GB	1 GB	1 GB	1 GB			2-way
2 GB	2 GB	2 GB	2 GB	2 GB	2 GB			2-way
512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	2-way
1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	2-way
2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2-way

The minimum memory configuration is one DIMM, installed in DIMM 1B slot (the slot nearest to the power supply connector). However, for optimum performance and 2-way memory interleave operation, two DIMMs with identical size should be installed. DIMMs on memory channel A are paired with DIMMs on memory channel B to configure 2-way memory interleave.

Both DIMM 1B and 1A must be populated before any DIMMs are installed. DIMM 2B and DIMM 2A must be populated in pairs.

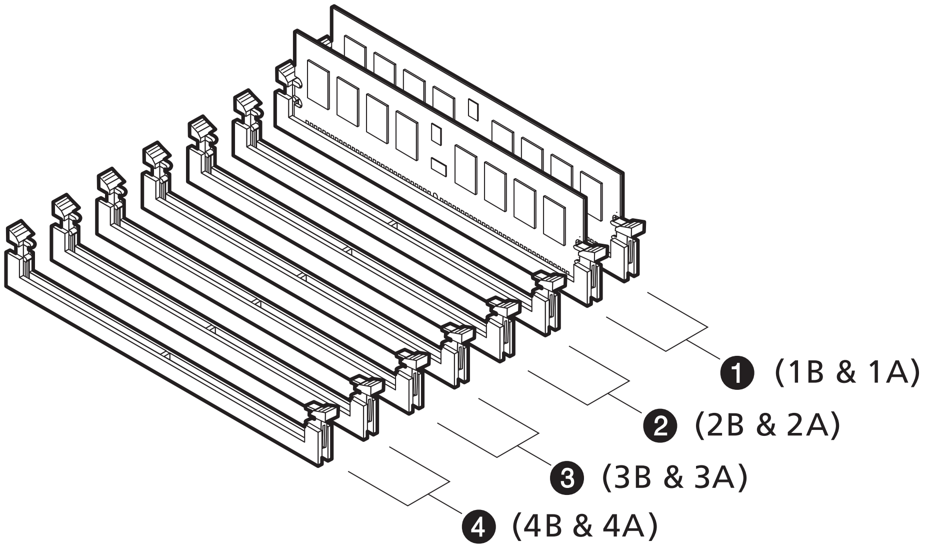
All DIMMs installed must be identical (same manufacturer, CAS latency, number of rows, columns and devices, timing parameters, etc.).

Warning! Functionality issues may be encountered if mixed memory types are installed on the same mainboard. DIMM modules of identical type, banking and stacking technology, and manufacturer should be installed in the Altos G710 system.

Memory configurations for the DDR2 DIMMs

The memory modules of identical type, banking, stacking and manufacturer must be installed and removed in the following order:

- DIMM 1B and DIMM 1A
- DIMM 2B and DIMM 2A
- DIMM 3B and DIMM 3A
- DIMM 4B and DIMM 4A



Altos G710 includes Memory Sparing and Mirroring support. These features prevent a single memory module failure to occur and result in a system crash.

Important: Four DIMM population of completely identical devices (two per channel) are required for memory mirroring and sparing functionality (i.e., DIMM 1A, 1B, 2A, and 2B must be identical) .

Memory sparing and mirroring configuration cannot be used simultaneously.

Memory Sparing

To provide a more fault tolerant system, Altos G710 includes specialized hardware to support fail-over to a spare DIMM device in the event that a primary DIMM in use exceeds a specified threshold of runtime errors. One of the DIMMs installed per channel will not be used, but kept in reserve. In the event of significant failures in a particular DIMM, it and its corresponding partner in the other channel (if applicable), will, over time, have its data copied over to the spare DIMM(s) held in reserve. When all the data has been copied, the reserve DIMM(s) will be put into service and the failing DIMM will be removed from service. Only one sparing cycle is supported. If this feature is not enabled, then all DIMMs will be visible in normal address space.

Refer to "Server Management Configuration" on page 103 for more information about configuring the memory spare or mirror parameter in the BIOS Setup utility.

Below table lists the suggested memory population for memory sparing:

DIMM 1B	DIMM 1A	DIMM 2B	DIMM 2A	DIMM 3B	DIMM 3A	DIMM 4B	DIMM 4A	Total Memory	
								Physical Memory	**Detected by OS**
512 MB	512 MB	512 MB (Spare)	512 MB (Spare)					2 GB	1 GB
1 GB	1 GB	1 GB (Spare)	1 GB (Spare)					4 GB	2 GB
2 GB	2 GB	2 GB (Spare)	2 GB (Spare)					8 GB	4 GB
512 MB	512 MB	512 MB	512 MB	512 MB (Spare)	512 MB (Spare)			3 GB	2 GB

DIMM 1B	**DIMM 1A**	**DIMM 2B**	**DIMM 2A**	**DIMM 3B**	**DIMM 3A**	**DIMM 4B**	**DIMM 4A**	**Total Memory**	
								Physical Memory	**Detected by OS**
1 GB	1 GB	1 GB	1 GB	1 GB (Spare)	1 GB (Spare)			6 GB	4 GB
2 GB	2 GB	2 GB	2 GB	2 GB (Spare)	2 GB (Spare)			12 GB	8 GB
512 MB	512 MB	512 MB	512 MB	512 MB	512 MB	512 MB (Spare)	512 MB (Spare)	4 GB	3 GB
1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB (Spare)	1 GB (Spare)	8 GB	6 GB
2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB (Spare)	2 GB (Spare)	16 GB	12 GB

Memory Mirroring

The Memory Mirroring feature designates a channel, two DDR2 DIMM slots, as spare memory and all system memory are sent to both mirrors by the Intel E7520 MCH chipset. When an uncorrectable error occurs from the Primary mirror, the chipset will automatically replace the data in the defective slot with data from the Secondary mirror.

Below table list the suggested memory population for memory mirroring:

DIMM 1B	**DIMM 1A**	**DIMM 2B**	**DIMM 2A**	**DIMM 3B**	**DIMM 3A**	**DIMM 4B**	**DIMM 4A**	**Total Memory**	
								Physical Memory	**Detected by OS**
512 MB	512 MB	512 MB (Mirror)	512 MB (Mirror)					2 GB	1 GB
1 GB	1 GB	1 GB (Mirror)	1 GB (Mirror)					4 GB	2 GB
2 GB	2 GB	2 GB (Mirror)	2 GB (Mirror)					8 GB	4 GB
512 MB	512 MB	512 MB (Mirror)	512 MB (Mirror)	512 MB	512 MB	512 MB (Mirror)	512 MB (Mirror)	4 GB	2 GB
1 GB	1 GB	1 GB (Mirror)	1 GB (Mirror)	1 GB	1 GB	1 GB (Mirror)	1 GB (Mirror)	8 GB	4 GB
2 GB	2 GB	2 GB (Mirror)	2 GB (Mirror)	2 GB	2 GB	2 GB (Mirror)	2 GB (Mirror)	16 GB	8 GB

Removing a DIMM

Before you can install a new DIMM in a socket, first remove any previously installed DIMM from that socket.

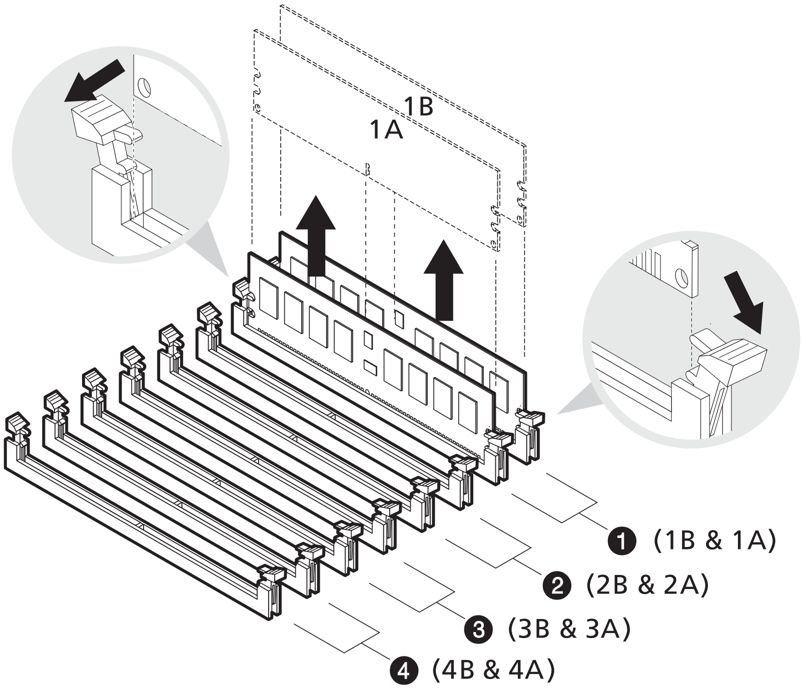
Important: Before removing any DIMM from the mainboard, make sure to create a backup file of all important data.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Locate the DDR2 DIMM slots on the mainboard.

3 Press the holding clips on both sides of the socket outward to release the DIMM.

4 Gently pull the DIMM upward to remove it from the socket .



Important: Remove identical memory modules at the same time and in the following sequence: 1B and 1A, 2B and 2A, 3B and 3A, and 4B and 4A. Refer to the illustration above for the recommended DIMM sequence.

Note: Place your forefingers on the top of the DIMM before pressing the holding clips to gently disengage the DIMM from the socket.

Installing a DIMM

Caution! When using multiple memory modules it is recommended that you AVOID using modules from different manufacturers or that run at different speeds from each other.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

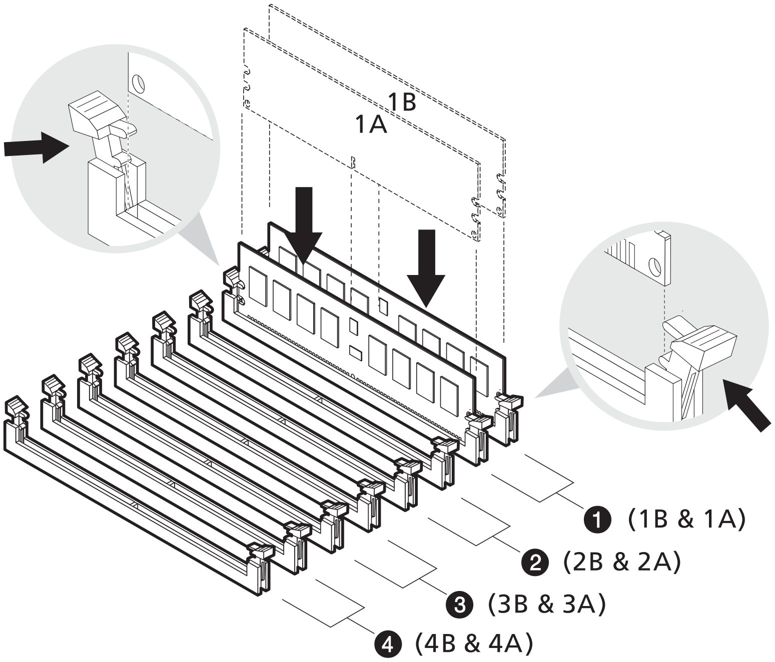
2 Locate the DDR2 DIMM slots on the mainboard.

3 Open the clips on the socket.

4 Align then insert the DIMM into the socket.

5 Press the holding clips inward to lock the DIMM in place.

Important: Install identical size DDR2 memory modules at the same time into the memory slots. You may install a single module into the memory slot or install modules in pairs (See suggested memory population for memory sparing on page 62 or memory mirroring on page 63).
Installation of the DDR2 memory modules must be in the following sequence: 1B and 1A, 2B and 2A, 3B and 3A, and 4B and 4A. Refer to the illustration on page 66 for the recommended DIMM sequence.



Note: The DIMM slot is slotted to ensure proper installation. If you insert a DIMM but it does not fit easily into the socket, you may have inserted it incorrectly. Reverse the orientation of the DIMM and insert it again.

6 Observe the post-installation instructions described on page 40.

Reconfiguring the system memory

The system automatically detects the amount of memory installed. Run the BIOS setup to view the new value for total system memory and make a note of it.

Installing the Altos RAID-enabler (optional)

This section explains how to install the Altos RAID-enabler (iButton) and an iTBBU.

The iTBBU (Transportable Battery Backup Unit) shown below is for your reference only. You have the option to install either an iTBBU or an unbuffered ECC DDR DIMM into the DIMM slot.

Note: The Altos RAID-enabler (iButton) is not included with your system. To purchase an Altos RAID-enabler (iButton) and iTBBU, contact your local Acer representative or order directly from http://www.acer.com/.

The Altos RAID-enabler (iButton) works in association with the DDR DIMM or iTBBU to subsequently store data from the HDD to the DIMM. iTBBU includes a battery pack attached onto the memory module that protects data in the cache memory in the event of a power failure.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

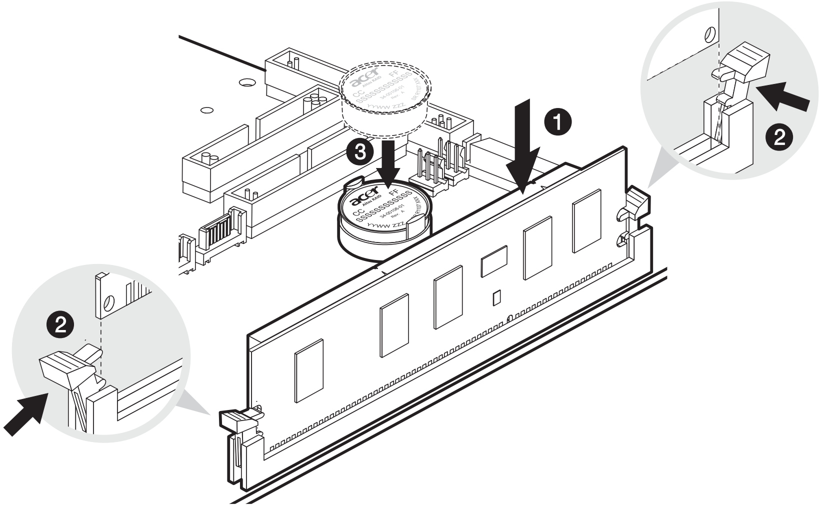
2 Install the Altos RAID-enabler (iButton) and the iTBBU by following the steps below:

   (1) Open the clips on the socket.

   (2) Align then insert the iTBBU into the DIMM slot **(1)**.

   (3) Press the holding clips inward to lock the iTBBU in place **(2)**.

(4) Insert the Altos RAID-enabler (iButton) into the socket and ensure that it is seated completely **(3)**. .



Installing an expansion card

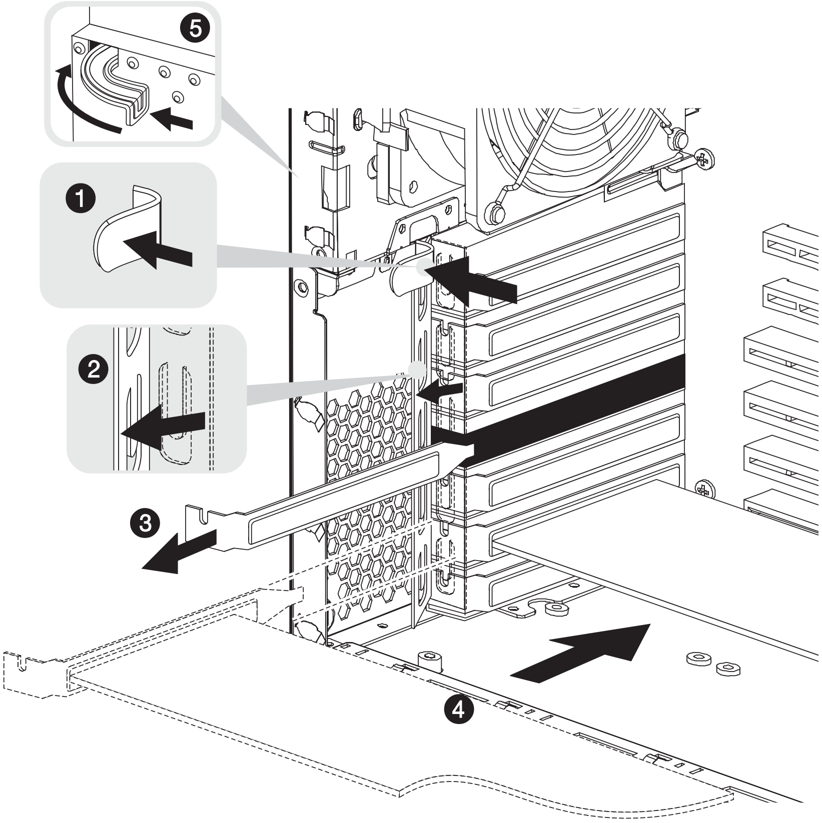
This section explains how to install an expansion card. The onboard expansion slots supports PCI (Peripheral Component Interconnect)/ PCI-X and PCI Express cards.

To install an expansion card

Note: PCI Express slot is a new type of interface and differs in length than the conventional PCI/PCI-X slots. You should always install the correct type of plug-in expansion cards in the x4 PCI Express slot. Contact your dealer for qualified x4 PCI Express card vendors.

1. Observe the ESD precautions and pre-installation procedures described on page 39.
2. Locate an empty expansion slot on the mainboard.
3. Press the slot release latch outward **(1)**.
4. Open the side cover of the slot **(2)**.
5. Pull out the card bracket **(3)**.
6. Remove the expansion card from its protective packaging.
7. Align the card in the empty slot.
8. Insert the bracket with the card into the selected slot **(4)**. Make sure that the card is properly seated.

9 Press the PCI slot lock lever on the rear panel of the server **(5)**.



Note: If you are installing I/O cards in the x4 PCI Express slot, secure the bracket with a screw before replacing the air baffle.

10 Observe the post-installation instructions described on page 40.

Note: When you turn on the system, the BIOS setup automatically detects and assigns resources to the new device (applicable only to Plug-and-Play expansion cards).

Installing a power supply module

The Altos G710 power subsystem consists of two hot-swap power supply module bays that accept 550-watt hot-swap redundant power supply modules. The system comes bundled with only a single power supply module leaving one power supply module bay empty. You have the option to purchase an extra power supply module to provide your system with a redundant power source. A redundant power configuration enables a fully-configured system to continue running even if one power supply module fails.

WARNING! To reduce the risk of personal injury or damage to the equipment, the installation of power supply modules should be referred to individuals who are qualified to service server systems and are trained to deal with equipment capable of generating hazardous energy levels.

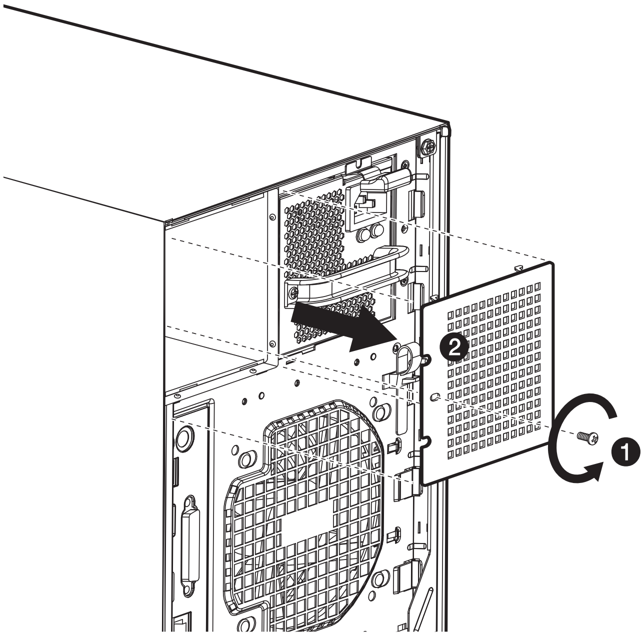
WARNING! To reduce the risk of personal injury from hot surfaces, observe the thermal labels on each power supply module. You can also consider wearing protective gloves.

WARNING! To reduce the risk of personal injury from electric shock hazards, do not open the power supply modules. There are no serviceable parts inside the module.

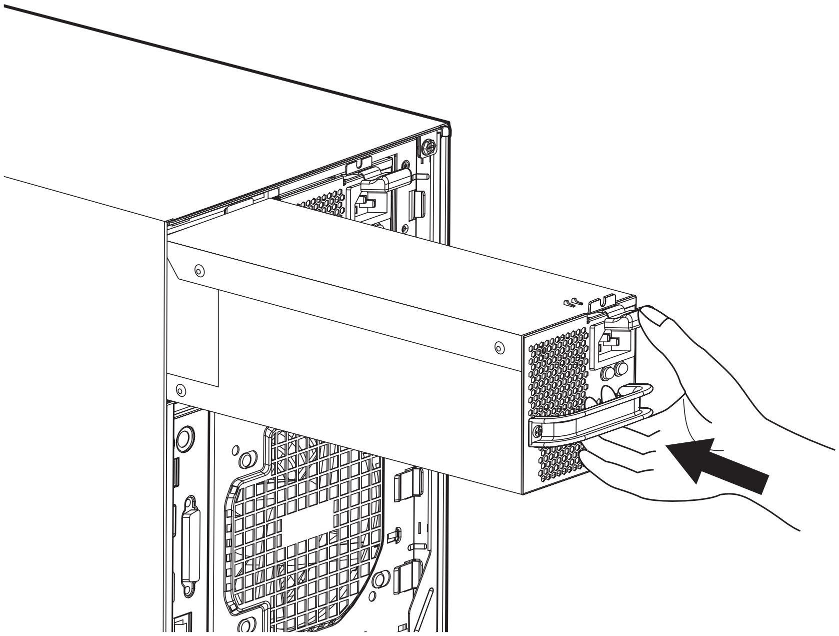
Caution! Electrostatic discharge can damage electronic components. Make sure that you are properly grounded before handling a power supply module.

To install a redundant power supply module

1 Remove the screw securing the cover of the empty power supply module bay, then detach the cover.



2 Hold the handle on front of the power supply module and press your thumb on the release latch. Slide the power supply module into the empty bay until you feel resistance.



3 Press the module handle to secure the power supply module to its bay.

4 Verify that the power indicators on both the main power supply and on the newly installed redundant power supply are illuminated (green).

Replacing the easy-swap system fan

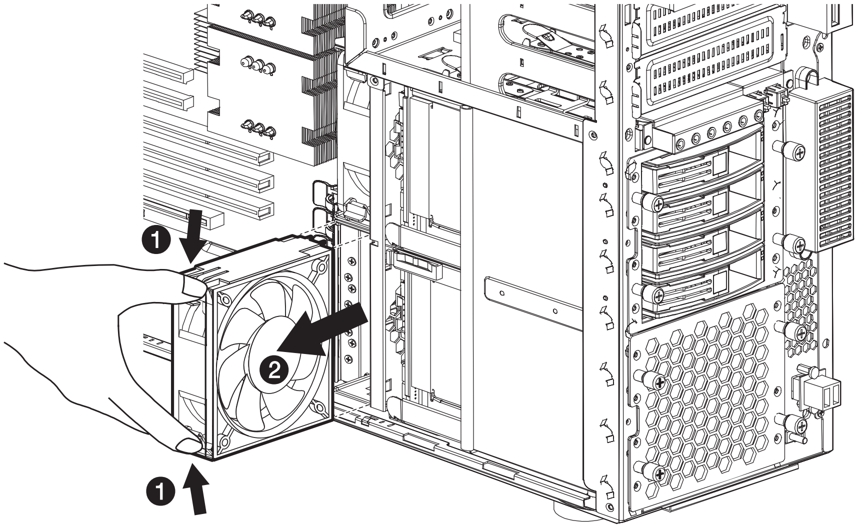
This section explains how to install an easy-swap system fan. The server accommodates two easy-swap system fans.

Removing an easy-swap system fan

Caution! To reduce the risk of personal injury, avoid contact with the fan when the blades are still moving.

1 Observe the ESD precautions and pre-installation procedures described on page 39.

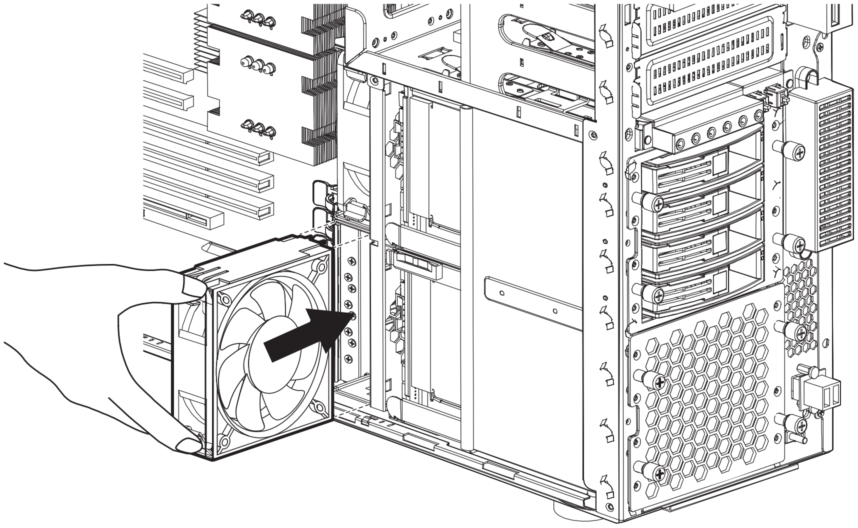
2 Grasp the release latch on both sides of the fan **(1)** then pull it out **(2)**.



Installing an easy-swap system fan

1 Observe the ESD precautions and pre-installation procedures described on page 39.

2 Insert the fan in an empty fan bay then press it firmly in place.



3 Observe the post-installation instructions described on page 40.

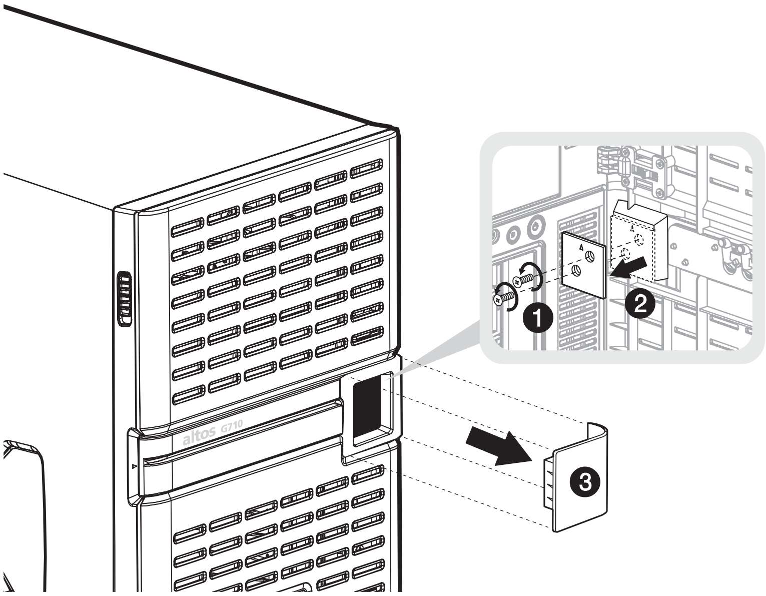
Installing an ePanel module (optional)

An optional ePanel module is available for the Altos G710 server system.

Note: ePanel is not included with your system. To purchase an ePanel module, contact your local Acer representative or order directly from http://www.acer.com/.

To install an ePanel module to your server:

1. Open the bezel door. Refer to "Opening the bezel door" on page 41 for instructions.
2. Remove the LCD display cover from the bezel door by following the steps below:
   (1) Remove the two screws that secure the rear and front LCD display cover to the bezel door **(1)**. Set the screws aside.
   (2) Remove the rear **(2)** and front cover **(3)**. Set the covers aside.



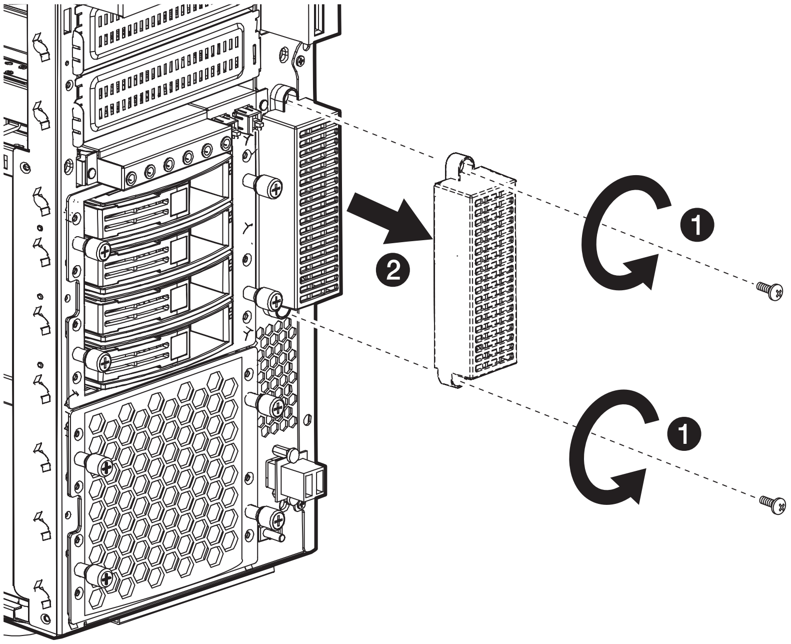
3. Remove the bezel door. Refer to "Removing the bezel door" on page 41 for instructions.

4 Remove the bezel. Refer to “Removing the bezel” on page 42 for instructions.

5 Remove the ePanel module cover from the bezel by the following steps:

   (1) Remove the two screws that hold the module cover to the bezel **(1)**. Set the screws aside.

   (2) Remove the module cover **(2)**. Set the cover aside.



6 Remove the ePanel module and cables from its protective packaging.

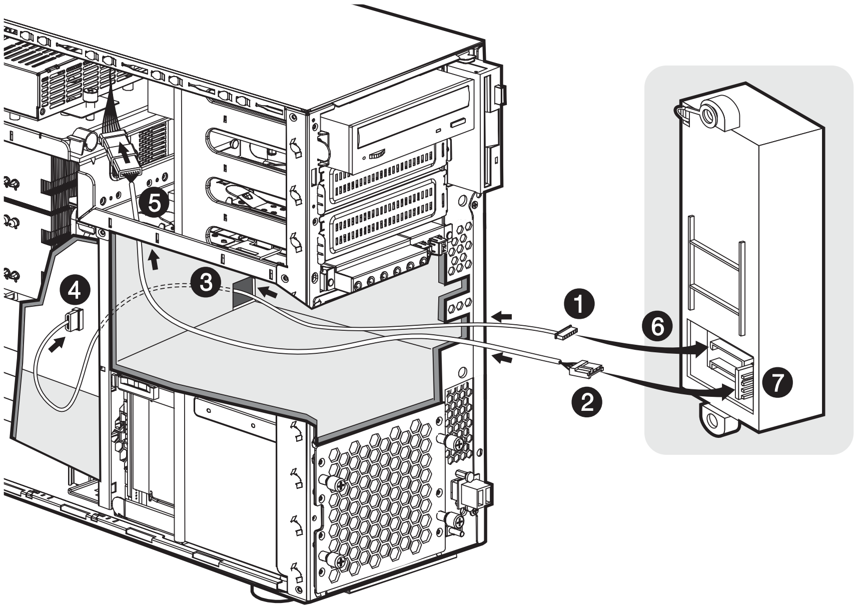
7 Route the following cables to the appropriate chassis openings:

   (1) ePanel cable — Connect to the ePanel connector on the mainboard **(1, 3, 4)**.

   (2) ePanel power cable — Connect to any of the system’s power cables **(2, 5)**.

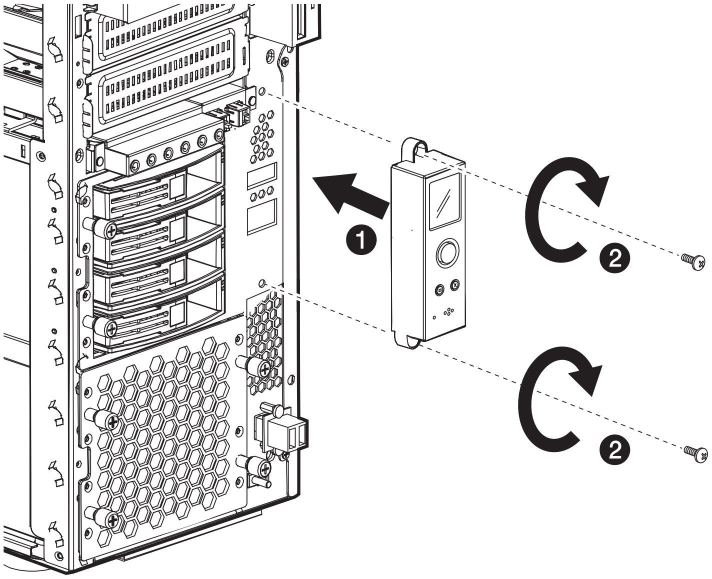
8 Attach the other end of the ePanel cable to the module’s ePanel connector **(6)**.

9 Attach the other end of the ePanel power cable to the module's ePanel power cable connector **(7)**.



10 Align the ePanel module in the ePanel bay **(1)**. Make sure that the module is properly seated.

11 Secure the ePanel with the two screws removed earlier **(2)**.



For more information on how to use the ePanel module, see "Appendix D: ePanel" on page 163.

4 BIOS setup

This chapter gives information about the system BIOS and discusses how to configure the system by changing the settings of the BIOS parameters.

BIOS setup

BIOS setup is a hardware configuration program built into your system's Basic Input/Output System (BIOS). Since most systems are already properly configured and optimized, there is no need to run this utility. You will need to run this utility under the following conditions:

- When changing the system configuration
- When a configuration error is detected by the system and you are prompted ("Run Setup" message) to make changes to the BIOS setup

  Note: If you repeatedly receive Run Setup messages, the battery may be bad. In this case, the system cannot retain configuration values in CMOS. Ask a qualified technician for assistance.

- When redefining the communication ports to prevent any conflicts
- When making changes to the Power Management configuration
- When changing the password or making other changes to the security setup

BIOS setup loads the configuration values in a battery-backed nonvolatile memory called CMOS RAM. This memory area is not part of the system RAM which allows configuration data to be retained when power is turned off.

Before you run BIOS setup, make sure that you have saved all open files. The system reboots immediately after you close the setup.

Entering BIOS setup

Power on the server to start the system POST process. During bootup, press **F2** to enter the BIOS setup screen.

Note: You must press **F2** while the system is booting. This key combination does not work during any other time.

There are several tabs on the setup screen corresponding to the six major BIOS menus:

- Main
- Advanced
- Power
- Boot
- Security
- Exit

The parameters on the screens shown in this User's Guide display default system values. These values may not be the same as those in your system.

Note the following reminders when moving around the setup screen:

- Use the **Left** and **Right** arrow keys to move to the next page or to return to the previous screen.
- Use the **Up** and **Down** arrow keys to select an item.
- Use the **+** and **-** keys to select an option.

Note: You can configure a parameter that is enclosed in square brackets. Grayed-out items have fixed settings and are not user-configurable.

- Use the **Tab** key to select a field.

- Use the **Enter** key to display a submenu screen.

Note: When a parameter is preceeded by a **>**, it means that a submenu screen is available.

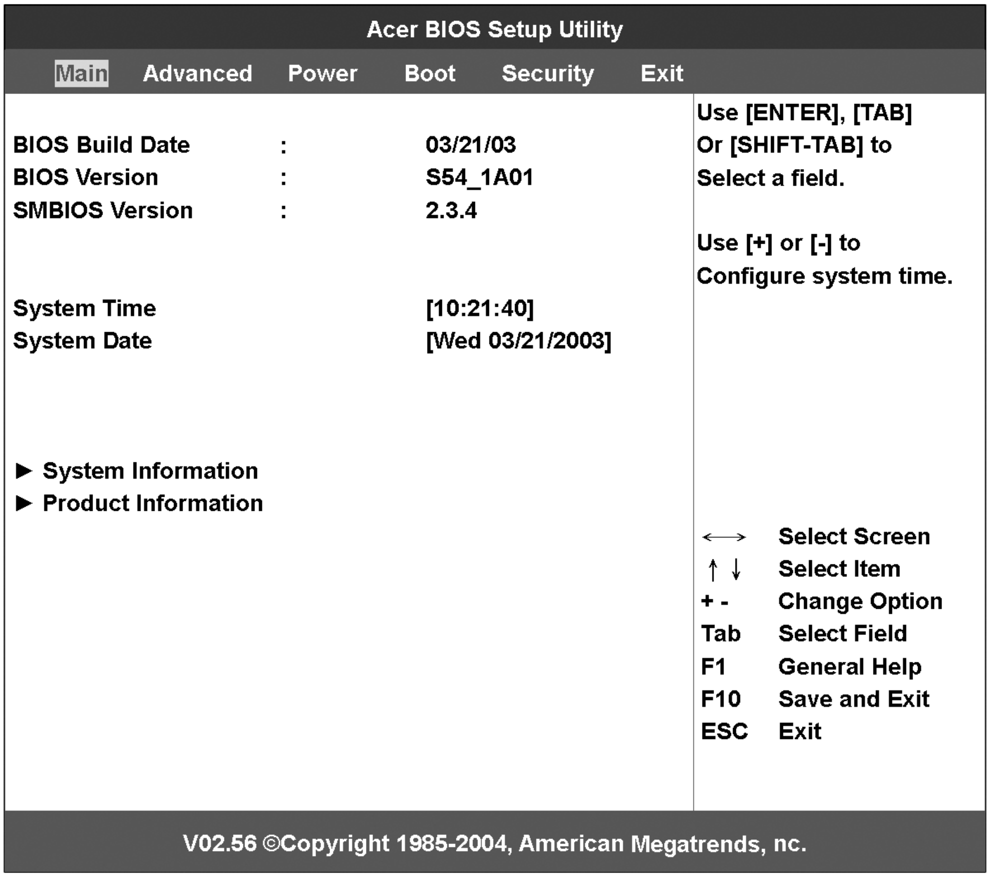
- Press **F1** for General Help on using the BIOS setup.
- Press **F10** to save changes and close the BIOS setup.
- Press **Esc** to close the BIOS setup.

In the descriptive table following each of the screen illustrations, settings in **boldface** are the default and suggested parameter settings.

Main

The Main menu displays basic and important information about the system. These information are necessary for troubleshooting and may be required when asking for technical support. These entries are for your reference only and are not user-configurable.

The last two parameters on the screen lets you define the sytem's time and date settings. The real-time clock keeps the system date and time. After setting the date and time, you do not need to enter them every time you turn on the system. As long as the internal battery remains good and connected, the clock continues to keep the date and time accurately even when the power is off.


Acer BIOS Setup Utility
Main Advanced Power Boot Security Exit
► System Information
► Product Information
←→ Select Screen
↑↓ Select Item
+ - Change Option
Tab Select Field
F1 General Help
F10 Save and Exit
ESC Exit

BIOS Build Date : 03/21/03
BIOS Version : S54_1A01
SMBIOS Version : 2.3.4

System Time [10:21:40]
System Date [Wed 03/21/2003]

Use [ENTER], [TAB] Or [SHIFT-TAB] to Select a field.

Use [+] or [-] to Configure system time.

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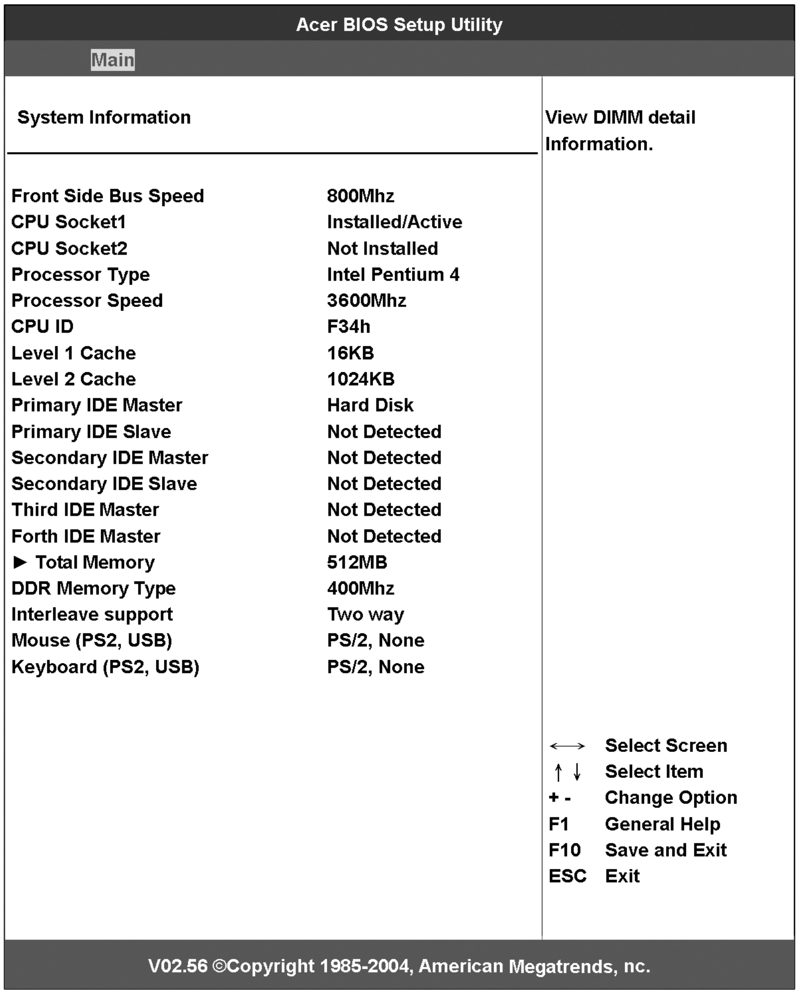
Parameter	Description
BIOS Build Date	Date when the BIOS setup was created.
BIOS Version	Version of the BIOS setup utility.

Parameter	Description
SMBIOS Version	Version of the SMBIOS. SMBIOS (System Management BIOS) allows you to check your system's hardware without actually opening it up. Hardware checking is done via software checkpoints during start up.
System Time	Sets the time following the hour-minute-second format. Valid values for hour, minute, and second are: Hour: 00 to 23 Minute: 00 to 59 Second: 00 to 59
System Date	Sets the date following the weekday-month-day-year format. Valid values for weekday, month, day, and year are: Weekday: Sun, Mon, Tue, Wed, Thu, Fri, Sat Month: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec Day: 1 to 31 Year: 1980 to 2079
System Information	Press **Enter** to access the System Information submenu.
Product Information	Press **Enter** to access the Product Information submenu.

System Information

The screen below appears when you select System Information from the Main window. The System Information menu displays basic information about the system.



```
System Information                                View DIMM detail
                                                  Information.
Front Side Bus Speed          800Mhz
CPU Socket1                   Installed/Active
CPU Socket2                   Not Installed
Processor Type                Intel Pentium 4
Processor Speed               3600Mhz
CPU ID                        F34h
Level 1 Cache                 16KB
Level 2 Cache                 1024KB
Primary IDE Master            Hard Disk
Primary IDE Slave             Not Detected
Secondary IDE Master          Not Detected
Secondary IDE Slave           Not Detected
Third IDE Master              Not Detected
Forth IDE Master              Not Detected
► Total Memory                512MB
DDR Memory Type               400Mhz
Interleave support            Two way
Mouse (PS2, USB)              PS/2, None
Keyboard (PS2, USB)           PS/2, None
                                                  ←→    Select Screen
                                                  ↑ ↓   Select Item
                                                  + -   Change Option
                                                  F1    General Help
                                                  F10   Save and Exit
                                                  ESC   Exit

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```

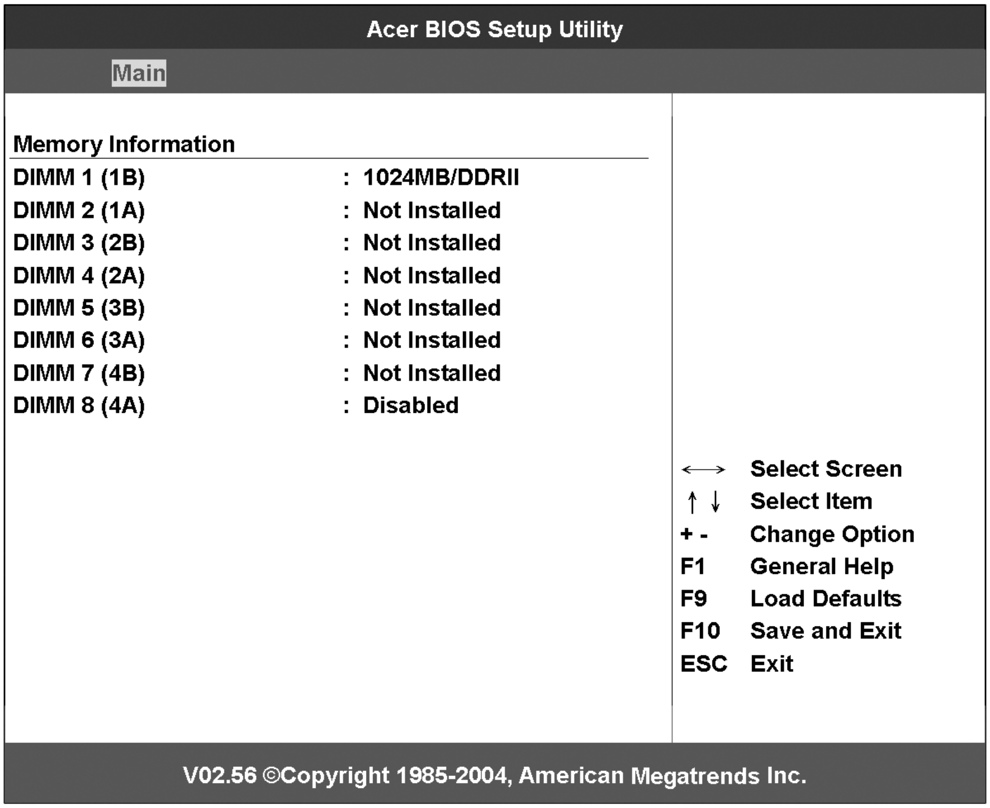
Parameter	Description
Front Side Bus Speed	The front side bus speed is the speed at which the CPU communicates with the mainboard and other parts of the system.
CPU Socket1	Indicates a processor is currently installed in the CPU 1 socket. Refer to “Server Management Configuration” on page 103 for the location of the CPU 1 socket.

Parameter	Description
CPU Socket2	Indicates a processor is currently installed in the CPU 2 socket. Refer to “Mainboard layout” on page 17 for the location of the CPU 2 socket.
Processor Type	Type of processor currently installed in the server.
Processor Speed	The processor speed is the speed at which a microprocessor executes instructions. Clock speeds are expressed in megahertz (MHz), with 1 MHz being equal to 1 million cycles per second. The faster the clock, the more instructions the CPU can execute per second.
CPU ID	ID number of the CPU.
Level 1 Cache	Total amount of first-level cache memory or the internal fast-accessed memory size (i.e., the memory integrated into the CPU).
Level 2 Cache	Total amount of the second-level cache memory that comes with the CPU. The available cache sizes are 256 and 512 KB.
Primary/Secondary/ Third/Fourth IDE Master	Indicates the hard disk type device.
Primary/Secondary IDE Slave	Indicates the type of IDE device.
Total Memory	Indicates the total amount of onboard memory. The memory size is automatically detected by BIOS during the POST. If you install additional memory, the system automatically adjusts this parameter to display the new memory size. Press **Enter** to access the Total Memory submenu.
DDR Memory Type	Type of memory module currently installed in the server.
Interleave support	Indicates the type of bank interleave currently supported by the memory.
Mouse (PS2, USB)	Indicates the type of mouse connected to the server.

Parameter	Description
Keyboard (PS2, USB)	Indicates the type of keyboad connected to the server.

Total Memory

The screen below appears when you select Total Memory from the System Information window. The Total Memory menu displays the type and size of DRAM installed in DIMM slots 1A, 1B, 2A,2B, 3A, 3B, 4A, and 4B. The Not Installed setting indicates that there is no DDR2 DRAM installed.



```
                     Acer BIOS Setup Utility
        Main

Memory Information
DIMM 1 (1B)              :  1024MB/DDRII
DIMM 2 (1A)              :  Not Installed
DIMM 3 (2B)              :  Not Installed
DIMM 4 (2A)              :  Not Installed
DIMM 5 (3B)              :  Not Installed
DIMM 6 (3A)              :  Not Installed
DIMM 7 (4B)              :  Not Installed
DIMM 8 (4A)              :  Disabled

                                          ←→    Select Screen
                                          ↑↓    Select Item
                                          + -   Change Option
                                          F1    General Help
                                          F9    Load Defaults
                                          F10   Save and Exit
                                          ESC   Exit

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```
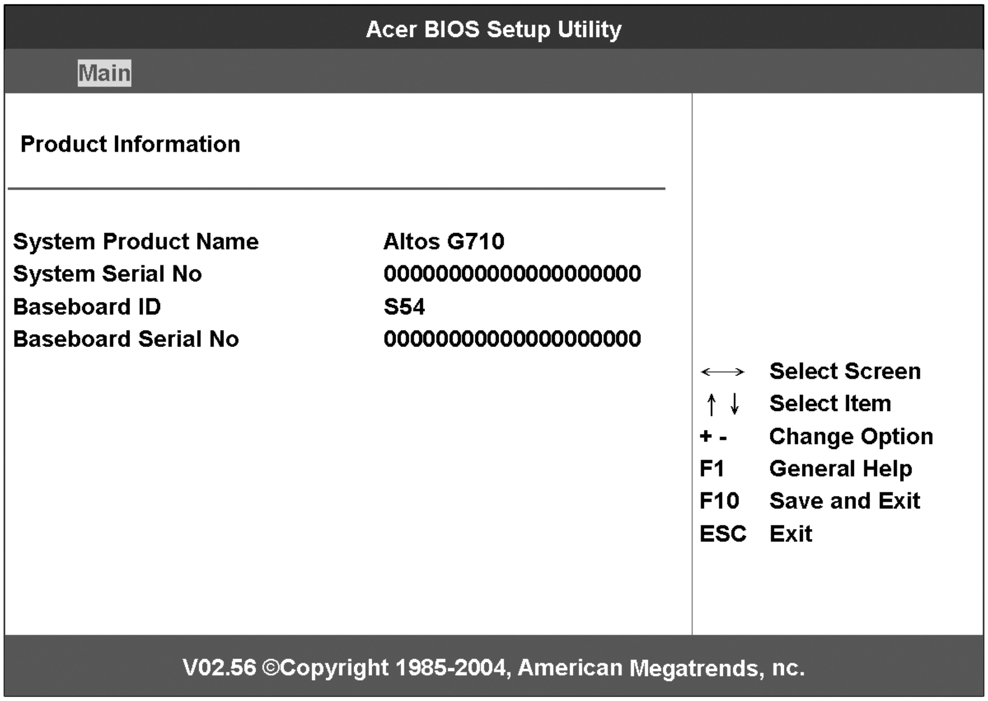

Product Information

The screen below appears when you select Product Information from the Main window. The Product Information menu displays general data about the system, such as the product name, BIOS version, mainboard ID, serial number, etc. These entries are for reference only and are not user-configurable.


Acer BIOS Setup Utility
Main

Product Information

System Product Name Altos G710
System Serial No 00000000000000000000
Baseboard ID S54
Baseboard Serial No 00000000000000000000

←→ Select Screen
↑↓ Select Item
+ - Change Option
F1 General Help
F10 Save and Exit
ESC Exit
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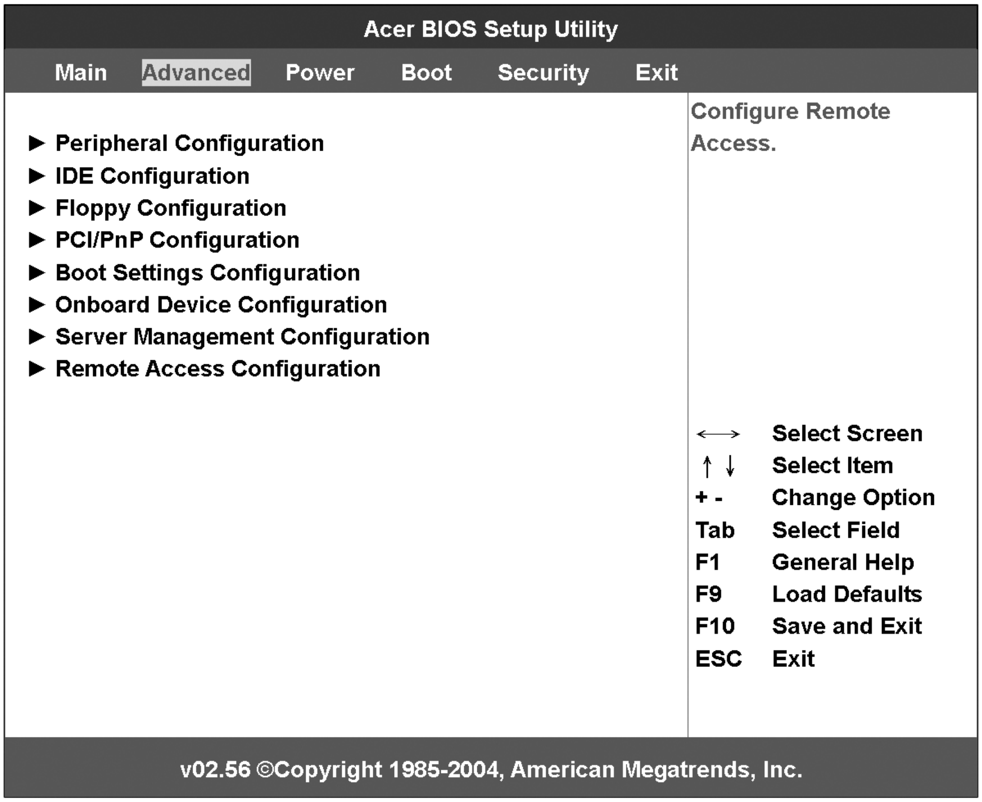
Parameter	Description
System Product Name	System's model name.
System Serial No	System's serial number.
Baseboard ID	System board's identification number.
Baseboard Serial No	System board's serial number.

Advanced

The Advanced menu contains parameter values that define how the system behaves on startup.

Warning! Be cautious in setting parameter values in the Advanced menu as any incorrect value may cause the system to malfunction.

Press **Enter** to enter the submenu screen of the parameters shown in the screen below.



Acer BIOS Setup Utility

Main Advanced Power Boot Security Exit

- ▶ Peripheral Configuration
- ▶ IDE Configuration
- ▶ Floppy Configuration
- ▶ PCI/PnP Configuration
- ▶ Boot Settings Configuration
- ▶ Onboard Device Configuration
- ▶ Server Management Configuration
- ▶ Remote Access Configuration

Configure Remote Access.

←→	Select Screen
↑ ↓	Select Item
+ -	Change Option
Tab	Select Field
F1	General Help
F9	Load Defaults
F10	Save and Exit
ESC	Exit

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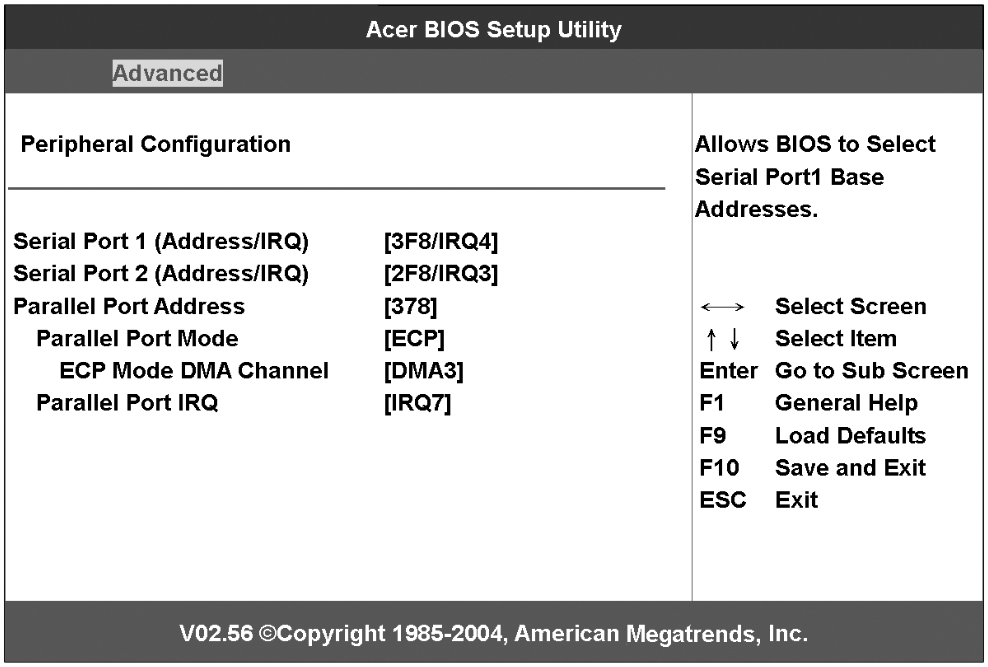
Peripheral Configuration

The Super I/O Configuration submenu lets you define the parameter settings for the system's parallel and serial ports.



Peripheral Configuration

Serial Port 1 (Address/IRQ)	[3F8/IRQ4]
Serial Port 2 (Address/IRQ)	[2F8/IRQ3]
Parallel Port Address	[378]
Parallel Port Mode	[ECP]
ECP Mode DMA Channel	[DMA3]
Parallel Port IRQ	[IRQ7]

Allows BIOS to Select Serial Port1 Base Addresses.

←→	Select Screen
↑ ↓	Select Item
Enter	Go to Sub Screen
F1	General Help
F9	Load Defaults
F10	Save and Exit
ESC	Exit

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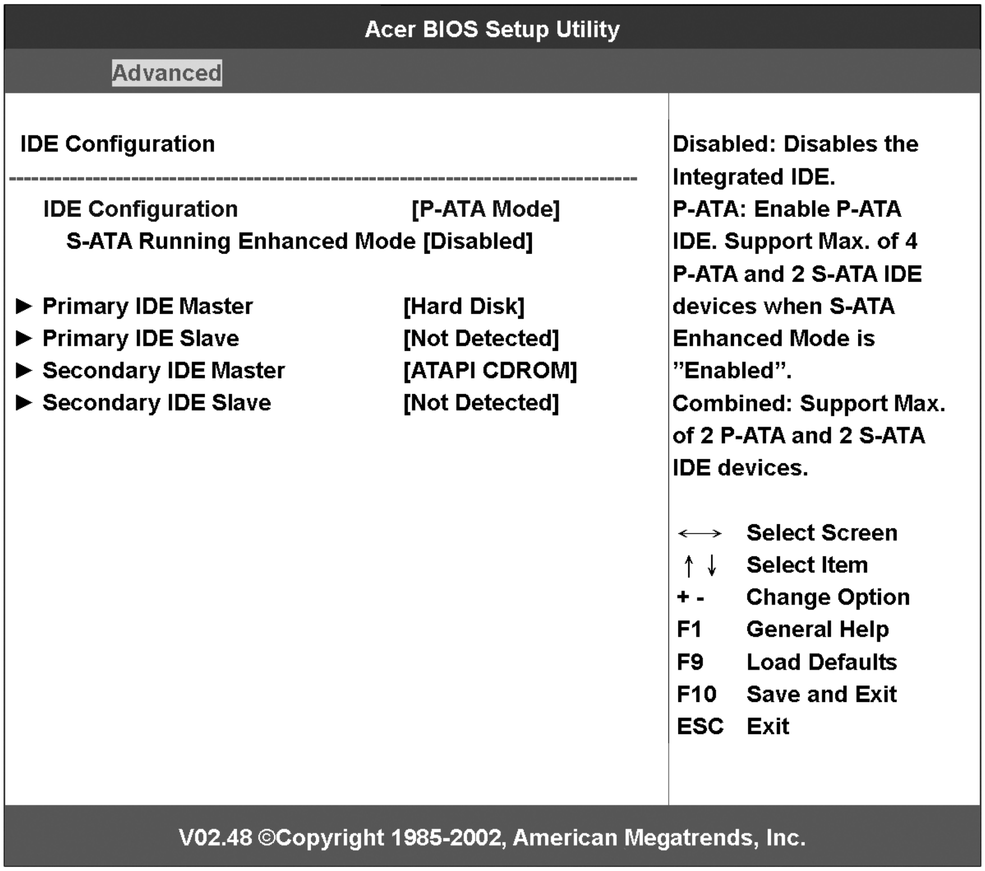
Parameter	Description	Option
Serial Port 1 (Address/IRQ)	Indicates the serial port 1 address and IRQ setting.	**3F8/IRQ4** 2F8/IRQ3 3E8/IRQ4 2E8/IRQ3 Disabled
Serial Port 2 (Address/IRQ)	Indicates the serial port 2 address and IRQ setting.	**2F8/IRQ3** 3E8/IRQ4 2E8/IRQ3 Disabled
Parallel Port Address	Indicates the parallel port address.	**378** 278 3BC Disabled

Parameter	Description	Option
Parallel Port Mode	Sets the operation mode for the parallel port. When set to Normal mode, allows normal speed one-way operation. When Bi-Directional, allows normal speed operation in a two way mode. EPP (Enhanced Parallel Port) allows bi-directional parallel port operation at maximum speed. ECP (Extended Capabilities Port) allows parallel port to operate in bi-directional mode and at a speed higher than the maximum data transfer rate.	**ECP** Normal Bi-Directional EPP
ECP Mode DMA Channel	Assigns a DMA (Direct Memory Access) channel for the ECP parallel port function. This parameter is configurable only if you select ECP as the parallel port's operation mode.	**DMA3** DMA0 DMA1
Parallel Port IRQ	Assigns an IRQ for the parallel port. If you install an add-on card that has a parallel port whose address conflicts with the onboard parallel port, a warning appears on the screen. Check the parallel port address of the add-on card and change the address to one that does not conflict.	**IRQ7** IRQ5

IDE Configuration

The IDE Configuration submenu lets you define the parameter settings related to the hard disk/s.



```
                    Acer BIOS Setup Utility
        Advanced

 IDE Configuration                              Disabled: Disables the
------------------------------------------      Integrated IDE.
   IDE Configuration            [P-ATA Mode]    P-ATA: Enable P-ATA
     S-ATA Running Enhanced Mode [Disabled]     IDE. Support Max. of 4
                                                P-ATA and 2 S-ATA IDE
 ► Primary IDE Master          [Hard Disk]      devices when S-ATA
 ► Primary IDE Slave           [Not Detected]   Enhanced Mode is
 ► Secondary IDE Master        [ATAPI CDROM]    ”Enabled”.
 ► Secondary IDE Slave         [Not Detected]   Combined: Support Max.
                                                of 2 P-ATA and 2 S-ATA
                                                IDE devices.

                                                ←→    Select Screen
                                                ↑ ↓   Select Item
                                                + -   Change Option
                                                F1    General Help
                                                F9    Load Defaults
                                                F10   Save and Exit
                                                ESC   Exit

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```
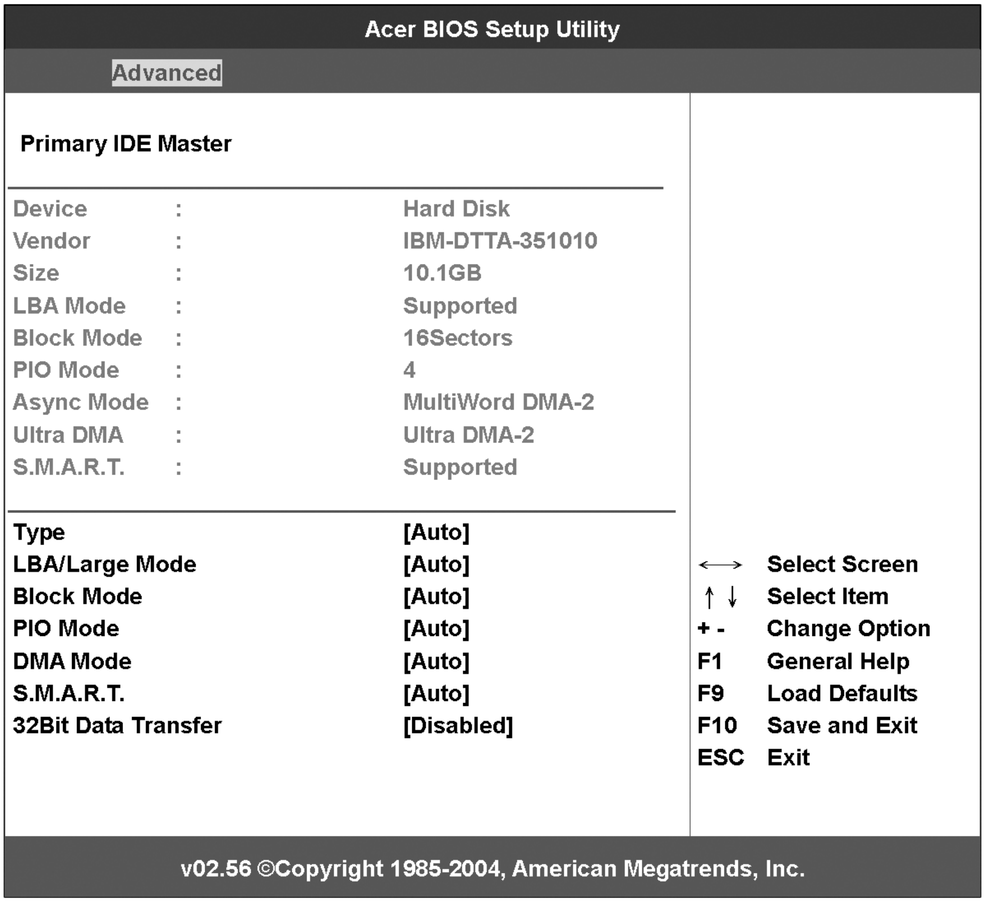

Parameter	Description	Option
IDE Configuration	Enables or disables the integrated IDE. When this parameter is set to P-ATA mode with the SATA Running Enhanced Mode also enabled, it enables support for PATA IDE mode. This mode can support a maximum of four PATA and two SATA IDE devices. When set to Combined Mode, the system can support a maximum of two PATA and two SATA IDE devices.	**P-ATA Mode** Combined Mode Disabled

Parameter	Description	Option
S-ATA Running Enhanced Mode	Enables or disables the PATA and SATA device support.	**Enabled** Disabled
Primary IDE Master	Specifies the current configuration of the IDE device connected to the master port of the primary IDE channel. Press **Enter** to access the Primary IDE Master submenu.	
Primary IDE Slave	Specifies the current configuration of the the IDE device connected to the slave port of the primary IDE channel. Press **Enter** to access the Primary IDE Slave submenu.	
Secondary IDE Master	Specifies the current configuration of the IDE device connected to the master port of the secondary IDE channel. Press **Enter** to access the Secondary IDE Master submenu.	
Secondary IDE Slave	Specifies the current configuration of the IDE device connected to the slave port of the secondary IDE channel. Press **Enter** to access the Secondary IDE Slave submenu.	

Primary/Secondary/Third/Fourth IDE Master/Slave

These items let you select the IDE hard disk parameters that the system supports.



Acer BIOS Setup Utility

Advanced

Primary IDE Master

```
Device        :          Hard Disk
Vendor        :          IBM-DTTA-351010
Size          :          10.1GB
LBA Mode      :          Supported
Block Mode    :          16Sectors
PIO Mode      :          4
Async Mode    :          MultiWord DMA-2
Ultra DMA     :          Ultra DMA-2
S.M.A.R.T.    :          Supported

Type                     [Auto]
LBA/Large Mode           [Auto]
Block Mode               [Auto]
PIO Mode                 [Auto]
DMA Mode                 [Auto]
S.M.A.R.T.               [Auto]
32Bit Data Transfer      [Disabled]
```

←→ Select Screen
↑↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit

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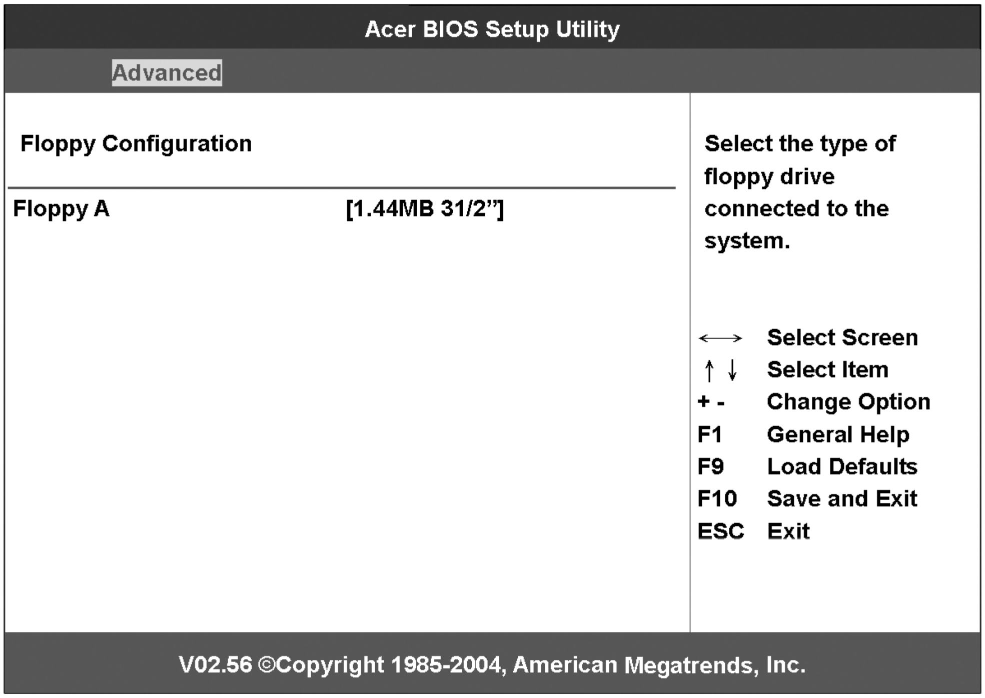
Parameter	Description	Option
Device	Type of IDE device.	
Vendor	Vendor of the selected IDE device.	
Size	Capacity of the selected device.	
Type	Drive type	**Auto** CD-ROM ARMD Not Installed

Parameter	Description	Option
LBA/Large Mode	Selects the hard disk drive translation method. For drivers with more than 504 MB, LBA mode is necessary.	**Auto** Disabled
Block Mode	Enhances disk performance depending on the hard disk in use. If you set this parameter to Auto, BIOS setup automatically detects if the installed hard disk drive supports the Block Mode function. If supported, it allows data transfer in blocks (multiple sectors) at a rate of 256 bytes per cycle. If you set this parameter to Disabled, data transfer from and to the device occurs one sector at a time.	**Auto** Disabled
PIO Mode	When set to Auto, BIOS setup automatically detects if the installed hard disk supports the function. If supported, it allows for faster data recovery and read/write timing that reduces hard disk activity time. This results in better hard disk performance. Mode 0 to 4 provide progressive increase of performance.	**Auto** 0 1 2 3 4
DMA Mode	Selects DMA mode.	**Auto** SWDMAn MWDMAn UDMAn
S.M.A.R.T	Enables or disables the SMART (Self-Monitoring, Analysis and Reporting Technology) function of the internal hard disk. If 'Auto' is selected, BIOS setup will enable the S.M.A.R.T function if the drive supports it.	**Auto** Disabled Enabled
32-bit Data Transfer	Enables or disables the 32-bit data transfer function	**Disabled** Enabled

Floppy Configuration

The Floppy Configuration submenu displays the type of floppy drive installed in the server.



Acer BIOS Setup Utility

Advanced

Floppy Configuration

Floppy A [1.44MB 31/2"]

Select the type of floppy drive connected to the system.

←→ Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit

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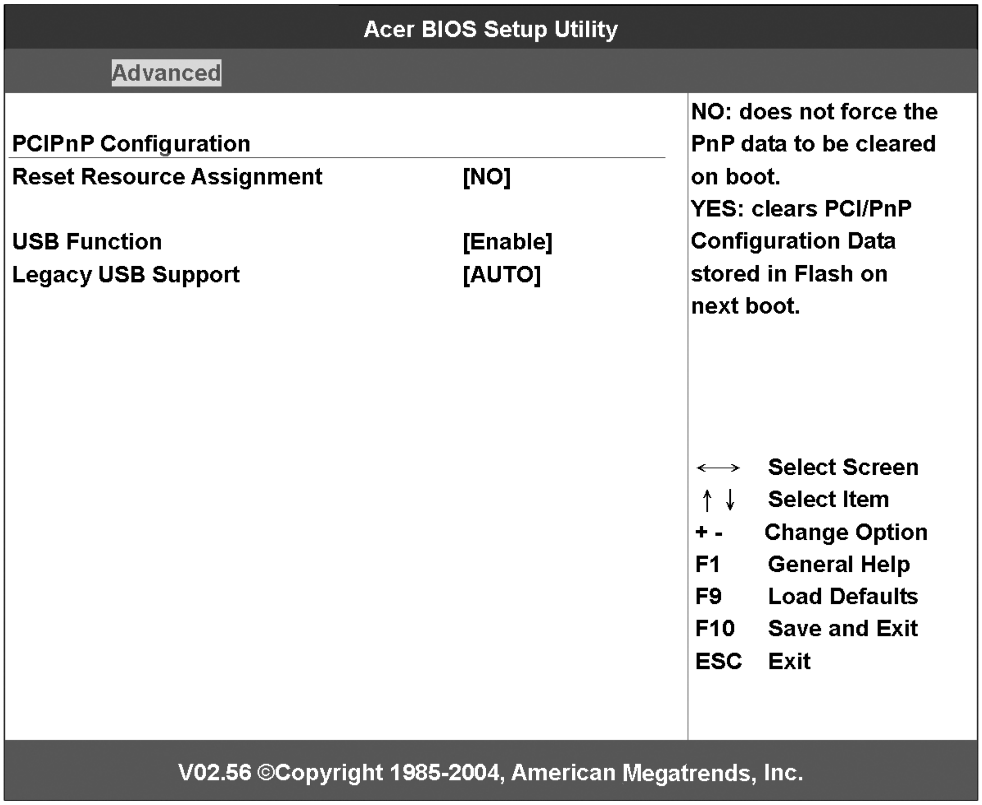
Parameter	Description	Option
Floppy A	Floppy disk drive type	**1.44 MB, 3.5-inch** Disabled

PCI/PnP Configuration

The PCI/PnP Configuration submenu lets you specify the settings for the PCI devices.


Acer BIOS Setup Utility
Advanced
← → Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit

PCIPnP Configuration

Reset Resource Assignment [NO]

USB Function [Enable]
Legacy USB Support [AUTO]

NO: does not force the PnP data to be cleared on boot.
YES: clears PCI/PnP Configuration Data stored in Flash on next boot.

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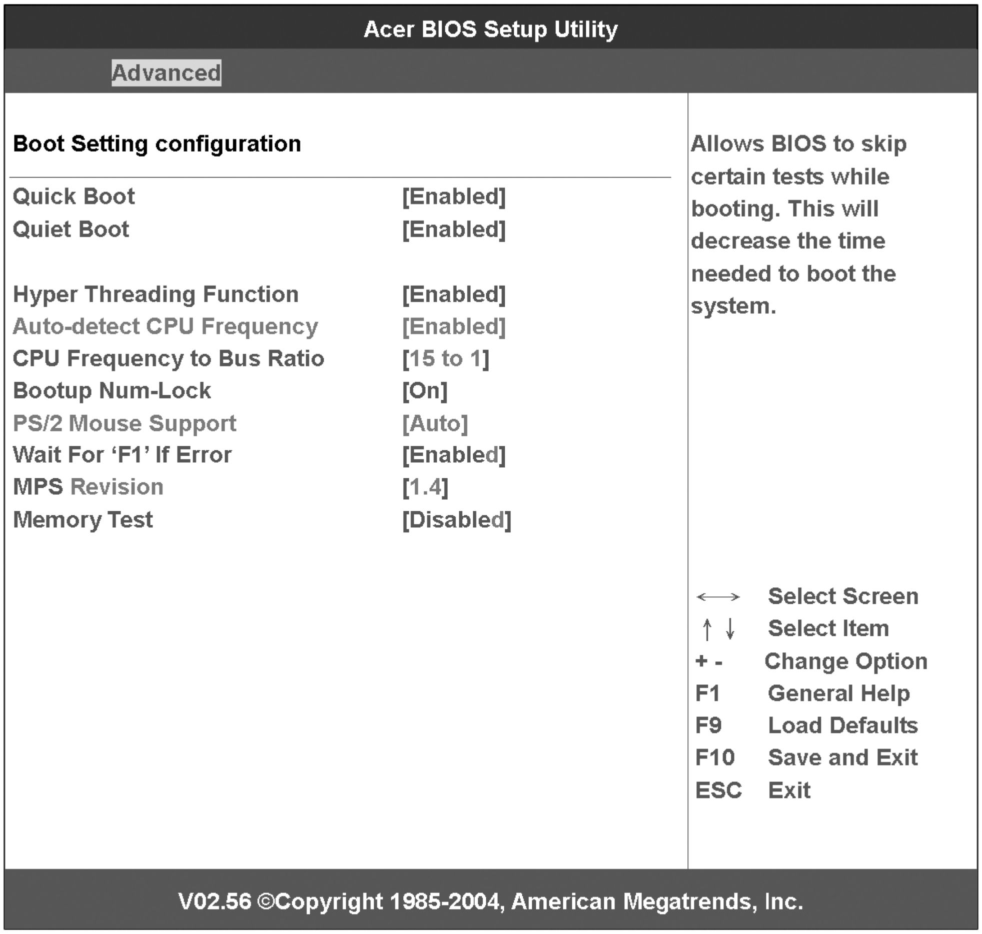
Parameter	Description	Option
Reset Resource Assignment	BIOS setup stores the configuration data of Plug and Play devices in NVRAM (Non-volatile Random Access Memory). When this parameter is set to Yes, current data is deleted and a new set of information is created during the next system bootup.	**No** Yes
USB Function	Enables or disables the USB ports.	**Enabled** Disabled
Legacy USB Support	Enable this parameter when you intend to use a USB device in a non-Plug and Play operating system, such as DOS.	**Auto**

Boot Settings Configuration

The Boot Settings Configuration submenu lets you specify the preferred settings for system bootup.



Acer BIOS Setup Utility
Advanced

Boot Setting configuration

```
Quick Boot                    [Enabled]
Quiet Boot                    [Enabled]

Hyper Threading Function      [Enabled]
Auto-detect CPU Frequency     [Enabled]
CPU Frequency to Bus Ratio    [15 to 1]
Bootup Num-Lock               [On]
PS/2 Mouse Support            [Auto]
Wait For 'F1' If Error        [Enabled]
MPS Revision                  [1.4]
Memory Test                   [Disabled]
```

Allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system.

←→ Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit
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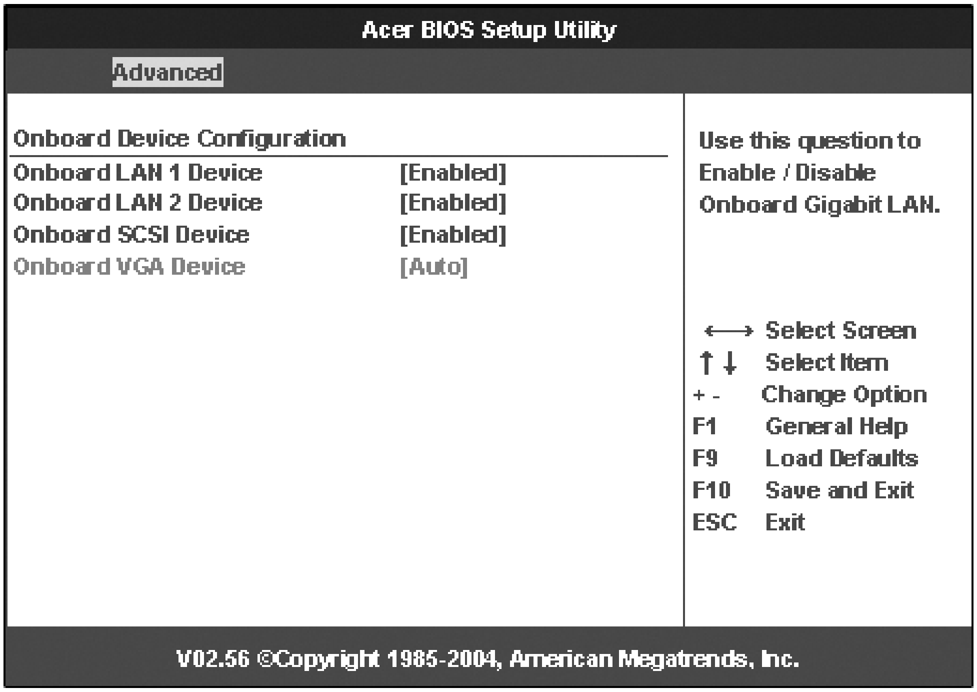
Parameter	Description	Option
Quick Boot	Allows the system to boot faster by skipping some POST routine.	**Enabled** Disabled

Parameter	Description	Option
Quiet Boot	Enables or disables the Quiet Boot function. When set to Enabled, BIOS setup is in graphical mode and displays only an identification logo during POST and while booting. After booting, the screen displays the operating system prompt (such as DOS) or logo (such as Windows 95). If any error occurs while booting, the system automatically switches to text mode. Even if your setting is Enabled, you may still switch to text mode while booting by pressing the **Delete** key when you see the `Press DELETE key to enter setup` message on the screen. When set to Disabled, BIOS setup is in the conventional text mode where you see the system initialization details on the screen.	**Enabled** Disabled
Hyper Threading Function	Enables or disables the Hyper-Threading function of the processor. When enabled, one physical processor acts as two logical processors by "threading" two sets of data instructions in parallel streams for processing. The processor can then simultaneously manage incoming data from different applications without losing track of the data processing status of each.	**Enabled** Disabled
Auto-detect CPU Frequency	Enables or disables the auto-detect CPU frequency function.	**Enabled** Disabled
CPU Frequency to Bus Ratio	CPU/bus ratio of the system. The clock speed of the bus does not necessarily equal the speed of the CPU. Mostly, the bus clock speed is slower than the CPU clock speed.	**Auto**
Boot up Num Lock	Activates the Num Lock function upon booting.	**On** Off
PS/2 Mouse Support	Enable this parameter if you intend to use a mouse or trackball with a PS/2 interface.	**Enabled** Disabled

Parameter	Description	Option
Wait for 'F1' if Error	When this item is enabled you will be prompted to press **F1** when an error is detected during boot up.	**Enabled** Disabled
MPS Revision	Version of the multiprocessor specifications.	**1.4** 1.1
Memory Test	When enabled, this parameter allows the system to perform a RAM test during the POST routine. When disabled, the system detects only the memory size and bypasses the test routine. **Note:** This parameter can only be configured when the Quick Boot parameter is disabled.	**Disabled** Enabled

Onboard Devices Configuration

The Onboard Devices Configuration submenu lets you specify settings that are related to the onboard controllers.


Acer BIOS Setup Utility
Advanced

Onboard Device Configuration

Onboard LAN 1 Device [Enabled]
Onboard LAN 2 Device [Enabled]
Onboard SCSI Device [Enabled]
Onboard VGA Device [Auto]

Use this question to Enable / Disable Onboard Gigabit LAN.

←→ Select Screen
↑↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit
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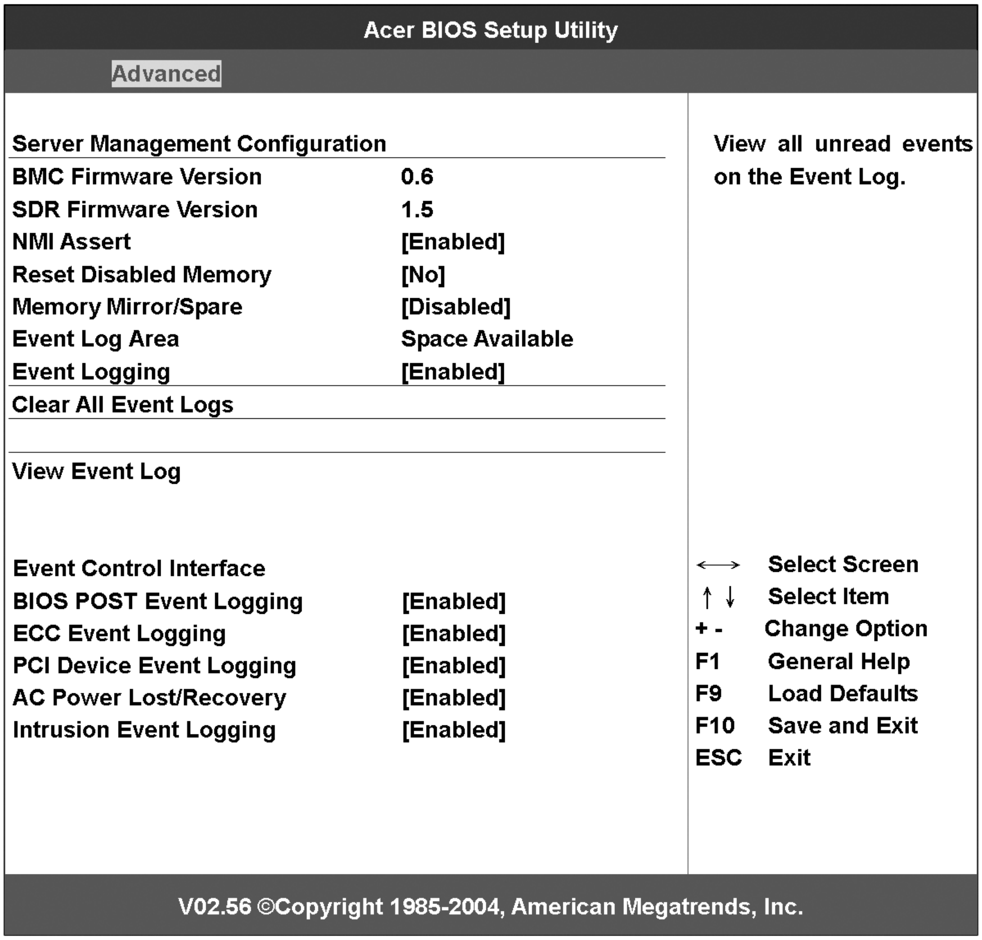
Parameter	Description	Option
Onboard LAN1 Device	Enables or disables the onboard LAN1 controller.	**Enabled** Disabled
Onboard LAN2 Device	Enables or disables the onboard LAN2 controller.	**Enabled** Disabled
Onboard SCSI Device	Enables or disables the onboard SCSI controller.	**Enabled** Disabled
Onboard VGA Device	Enables or disables the onboard VGA controller.	**Auto** Disabled

Server Management Configuration

The Server Management Configuration submenu lets you specify the appropriate settings for the system's event handling function.

The system event log enables you to record and monitor events that occur in the system (eg., system temperature changes, fan stops, etc.).



Acer BIOS Setup Utility

Advanced

Server Management Configuration

BMC Firmware Version	0.6
SDR Firmware Version	1.5
NMI Assert	[Enabled]
Reset Disabled Memory	[No]
Memory Mirror/Spare	[Disabled]
Event Log Area	Space Available
Event Logging	[Enabled]

Clear All Event Logs

View Event Log

Event Control Interface

BIOS POST Event Logging	[Enabled]
ECC Event Logging	[Enabled]
PCI Device Event Logging	[Enabled]
AC Power Lost/Recovery	[Enabled]
Intrusion Event Logging	[Enabled]

View all unread events on the Event Log.

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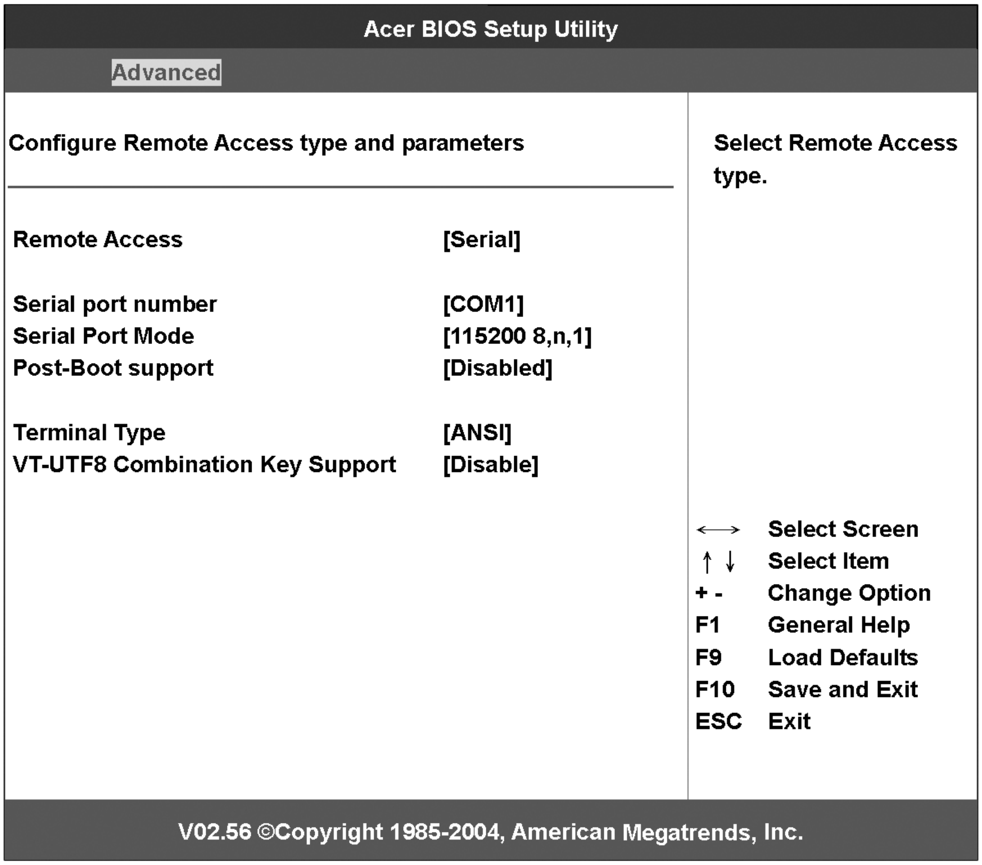
Parameter	**Description**	**Option**
BMC Firmware Version	Version of the BMC (Baseboard Management Controller) firmware.	
SDR Firmware Version	Version of the SDR (Spatial Data Repository) firmware.	

Parameter	Description	Option
NMI Assert	Enables or disables the PCI bus parity error support.	**Enabled** Disabled
Reset Disabled Memory	When this parameter is enabled, only the the system's healthy memory size is displayed during the POST process.	**No** Yes
Memory Mirror/Spare	When this item is set to Mirror, only half of the memory capacity will be detected by the system OS. When set to Sparing, a DIMM slot will be reserved for standby in the event of significant failures in a particular DIMM and cannot be accessed by the system.	**Disabled** Mirror Sparing
Event Log Area	Displays the space available for event log entries.	
Event Logging	Enables or disables the event logging function of the system.	**Enabled** Disabled
Clear All Event Logs	When this item is set to Enabled, the event log is cleared and this parameter is set to Disabled for the next system bootup.	**Disabled** Enabled
View Event Log	Opens the system event log file for viewing.	
Event Control Interface		
BIOS POST Event Logging	BIOS checks the bad processors and memory modules during the POST process. When this parameter is enabled, it will make a log of this operation.	**Enabled** Disabled
ECC Event Logging	ECC (Error Correcting Code) tests the accuracy of data as it passes in and out of memory. When this parameter is enabled, single-bit and multi-bit memory errors will be recorded in the event log.	**Enabled** Disabled

Parameter	Description	Option
PCI Device Event Logging	PCI (Peripheral Component Interconnect) is a 32-bit bus that supports a 64-bit extension for new processors, such as Pentium processors. It can run at clock speeds of 33 or 66 MHz. When this parameter is enabled, any PCI device error will be recorded in the event log.	**Enabled** Disabled
AC Power Lost/Recovery	When this parameter is enabled, any instance of AC power lost will be monitored and logged in the event log.	**Enabled** Disabled
Intrusion Event Logging	When this parameter is enabled, any instance of chassis intrusion will be monitored and logged in the event log.	**No** Yes

Remote Access Configuration

The Remote Access Configuration submenu lets you define the parameter settings for the system’s serial ports.



```
Configure Remote Access type and parameters            Select Remote Access
                                                       type.
Remote Access                       [Serial]

Serial port number                  [COM1]
Serial Port Mode                    [115200 8,n,1]
Post-Boot support                   [Disabled]

Terminal Type                       [ANSI]
VT-UTF8 Combination Key Support     [Disable]

                                                       ←→    Select Screen
                                                       ↑ ↓   Select Item
                                                       + -   Change Option
                                                       F1    General Help
                                                       F9    Load Defaults
                                                       F10   Save and Exit
                                                       ESC   Exit

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```

Parameter	Description	Option
Remote Access	Enables or disables remote serial access.	**Serial** Disabled
Serial Port Number	Assigns a serial port to be used for connecting to the console.	**COM1** COM2 (via BMC)
Serial Port Mode	Sets the transfer rate for the serial port. The parameter setting depends on your modem specification; therefore, before you change the setting of this parameter, check the documentation that came with your modem.	**115200 8,n,1** 57600 8,n,1 19200 8,n,1

Parameter	Description	Option
Post-Boot Support	Enables or disables the BIOS console redirection during system boot up.	**Disabled** Enabled
Terminal Type	Selects the console type.	**ANSI** VT100 VT-UTF8
VT-UTF8 Combination Key Support	Enables or disables the VT-UFT8 combination keys for remote station configuration and management. The combination keys for remote station management are listed in the table below.	**Disabled** Enabled

VT-UTF8 shortcut key combinations

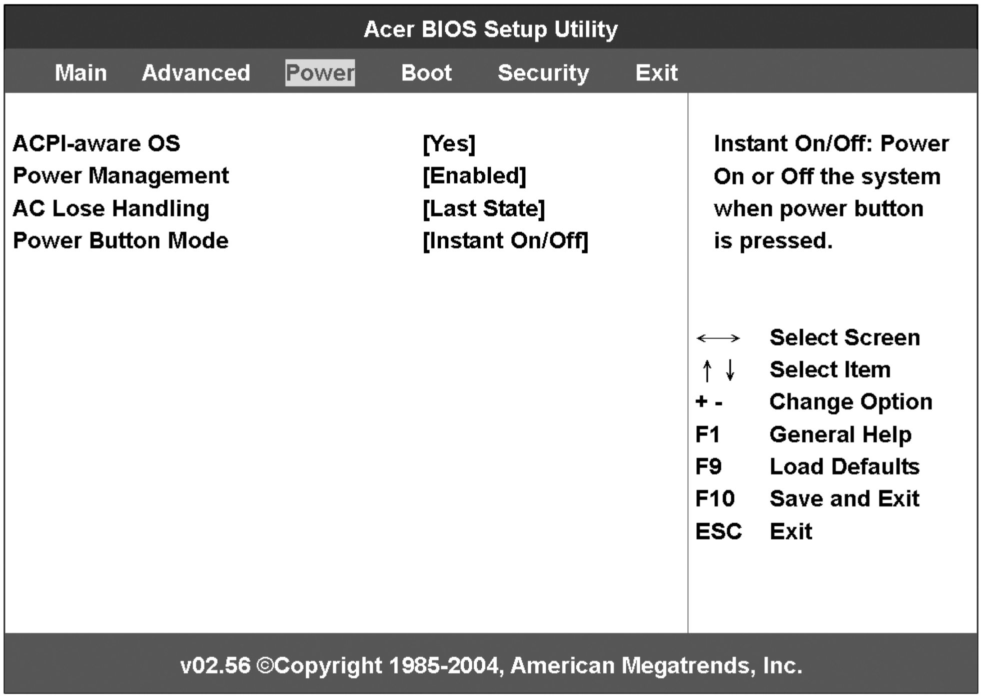
The following table lists the escaped sequences that must be sent to represent a special key or command for remote station configuration.

Key	ANSI Escape Sequence	Windows Platform Design Note
F1	<Esc><Shift>op	<Esc>1
F2	<Esc><Shift>oq	<Esc>2
F3	<Esc><Shift>or	<Esc>3
F4	<Esc><Shift>os	<Esc>4
F5	<Esc><Shift>ot	<Esc>5
F6	<Esc><Shift>ou	<Esc>6
F7	<Esc><Shift>ov	<Esc>7
F8	<Esc><Shift>ow	<Esc>8
F9	<Esc><Shift>ox	<Esc>9
F10	<Esc><Shift>oy	<Esc>0

Key	ANSI Escape Sequence	Windows Platform Design Note
F11	<Esc><Shift>oz	<Esc>!
F12	<Esc><Shift>oa	<Esc>@
Home	<Esc>[<Shift>h	<Esc>h
End	<Esc>[<Shift>k	<Esc>k
Ins	<Esc>[2	<Esc>+
Del	<Esc>[3	<Esc>-
Page Up	<Esc>[5	<Esc>?
Page Down	<Esc>[6	<Esc>/
Up Arrow	<Esc>[<Shift>a	<Esc>w
Down Arrow	<Esc>[<Shift>b	<Esc>x
Right Arrow	<Esc>[<Shift>c	<Esc>d
Left Arrow	<Esc>[<Shift>d	<Esc>a
Reset	<Esc><Shift>b	<Esc>R<Esc>r<Esc>R

Power

The Power menu allows you to configure the system's power management feature.



Acer BIOS Setup Utility

Main
Advanced
Power
Boot
Security
Exit

ACPI-aware OS [Yes]
Power Management [Enabled]
AC Lose Handling [Last State]
Power Button Mode [Instant On/Off]

Instant On/Off: Power On or Off the system when power button is pressed.

←→ Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit

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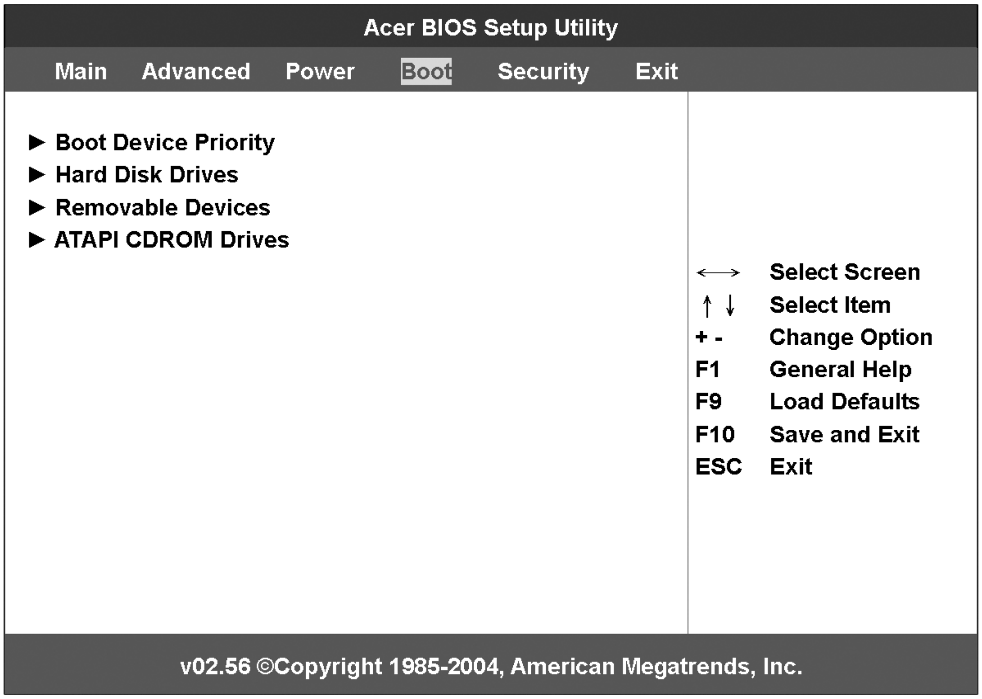
Parameter	Description	Option
ACPI-aware OS	Indicates whether the system's OS supports the ACPI standard of power management.	**Yes** No
Power Management	When this parameter is enabled, it allows some OS, such as Windows 95/98, to implement APM (Advanced Power Management) functions.	**Enabled** Disabled

Parameter	Description	Option
AC Lose Handling	Defines the power state to resume to after a system shutdown that is due to an interruption in AC power. When set to Last State, the system will return to the active power state prior to shutdown. When set to Stay Off, the system remains off after power shutdown. When set to Stay On, the system will be turned on from a power failure.	**Last State** Stay Off Stay On
Power Button Mode	When set to Instant On/Off, the system automatically turns off when the power button is pressed for less than 4 seconds. When set to 4-Sec. Override, the system enters the suspend mode when the power button is pressed for less than 4 seconds.	**Instant On/Off** 4-Sec. Override

Boot

The Boot menu allows you to set the drive priority during system bootup. It also displays information about the installed storage devices.

Press **Enter** to enter the submenu screen of the parameters shown in the screen below.


Acer BIOS Setup Utility
Main
Advanced
Power
Boot
Security
Exit
▶ Boot Device Priority
▶ Hard Disk Drives
▶ Removable Devices
▶ ATAPI CDROM Drives
←→ Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit
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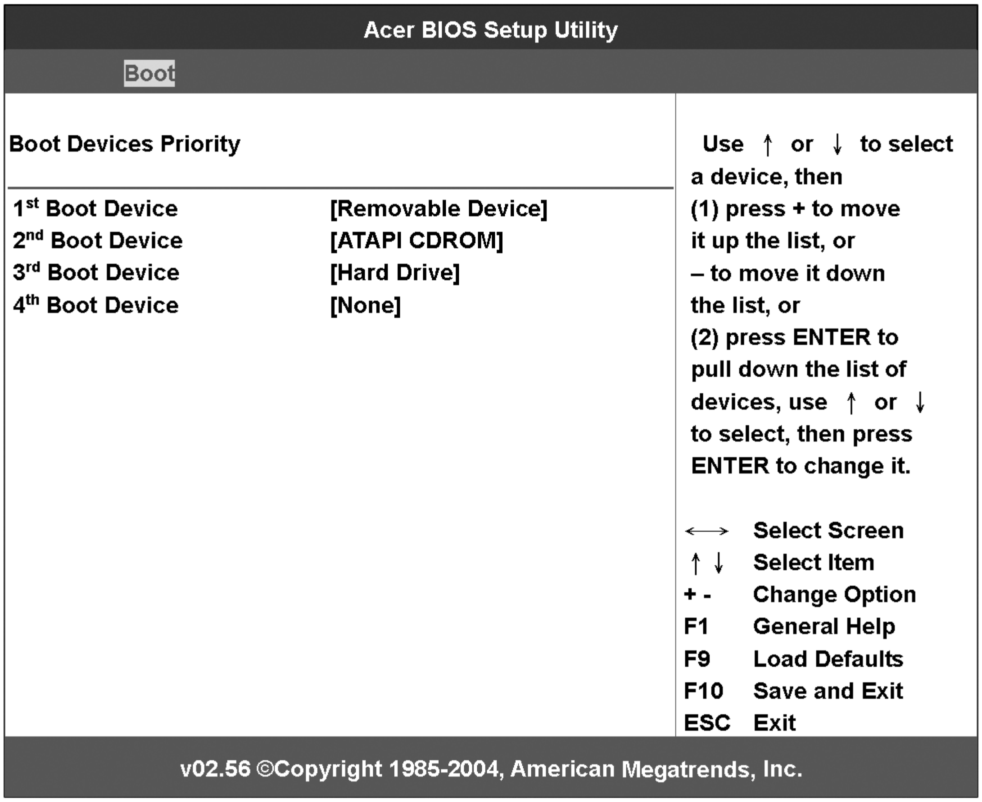
Boot Device Priority

The Boot Device Priority submenu lets you specify the boot search sequence during the POST process.

BIOS setup will display an error message if the drive(s) specified is not bootable.



Acer BIOS Setup Utility

Boot

Boot Devices Priority

1st Boot Device	[Removable Device]
2nd Boot Device	[ATAPI CDROM]
3rd Boot Device	[Hard Drive]
4th Boot Device	[None]

Use ↑ or ↓ to select a device, then (1) press + to move it up the list, or – to move it down the list, or (2) press ENTER to pull down the list of devices, use ↑ or ↓ to select, then press ENTER to change it.

←→	Select Screen
↑ ↓	Select Item
+ -	Change Option
F1	General Help
F9	Load Defaults
F10	Save and Exit
ESC	Exit

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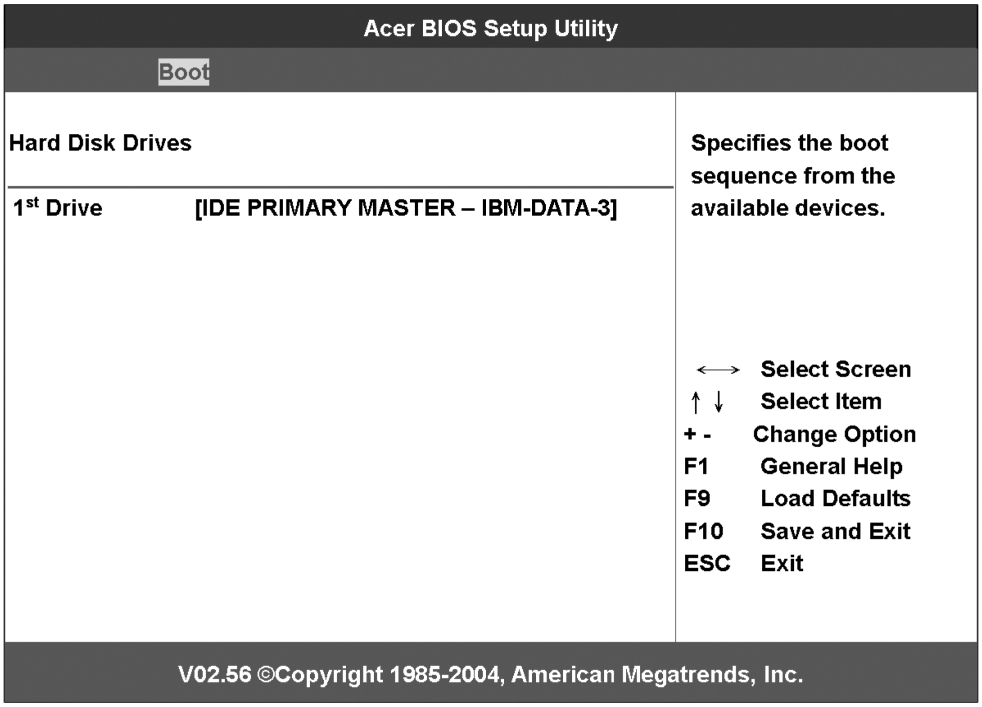
Parameter	Description
1st Boot Device	Sets the device from which the system will first attempt to boot up.
2nd Boot Device	Sets the device from which the system will attempt to boot up when the first attempt failed.
3rd Boot Device	Sets the device from which the system will attempt to boot up when the first and second attempts failed.
4th Boot Device	Sets the device from which the system will attempt to boot up when the first, second and third attempts failed.

Hard Disk Drives

The Hard Disk Drives submenu lets you specify the devices that will be considered as the primary and secondary hard drives.


Acer BIOS Setup Utility
Boot
←→ Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit

Hard Disk Drives

1st Drive [IDE PRIMARY MASTER – IBM-DATA-3]

Specifies the boot sequence from the available devices.

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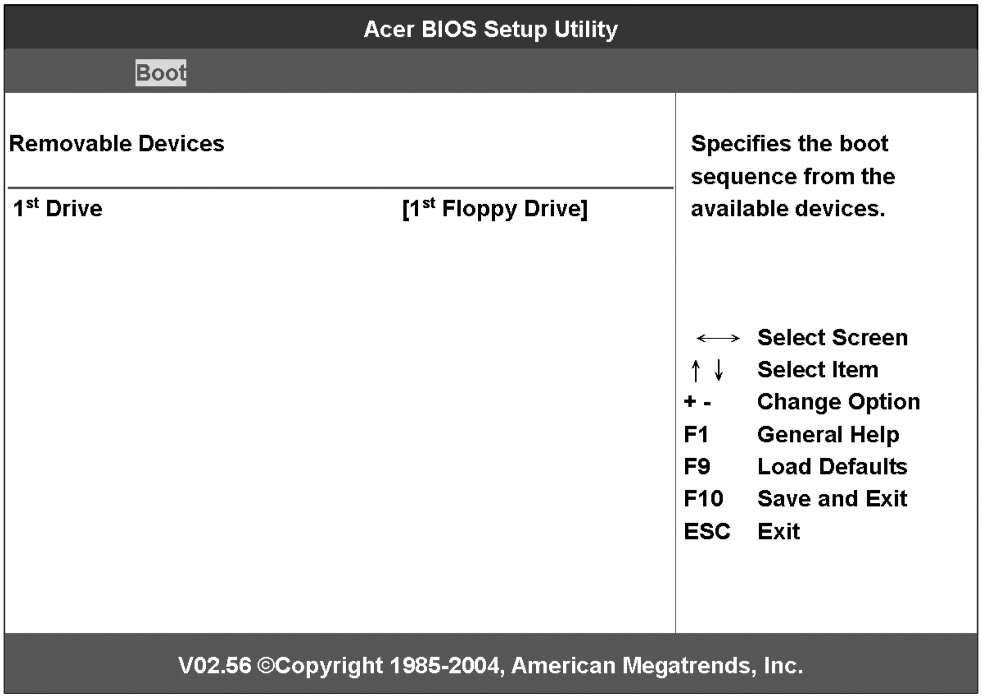
Removable Devices

The Removable Devices submenu displays the type of removable devices installed in the system.



Acer BIOS Setup Utility

Boot

Removable Devices

1st Drive [1st Floppy Drive]

Specifies the boot sequence from the available devices.

←→ Select Screen
↑ ↓ Select Item
+ - Change Option
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit

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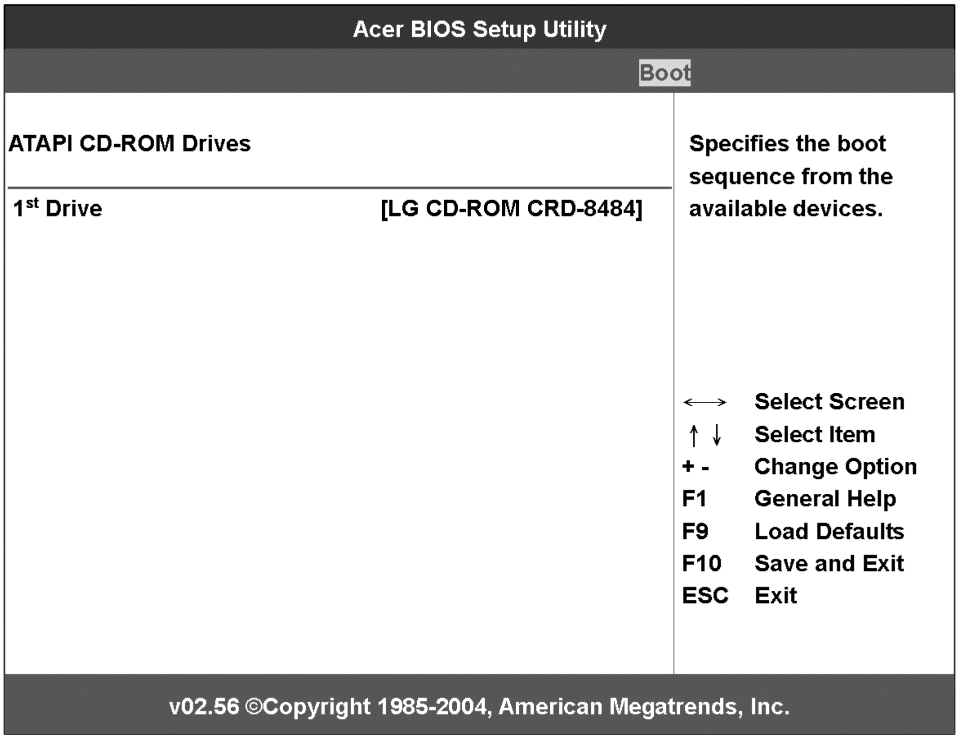
ATAPI CD-ROM Devices

The ATAPI (Advanced Technology Attachment Packet Interface) CD-ROM submenu displays the type of ATAPI CD-ROM installed in the system.



Acer BIOS Setup Utility

Boot

ATAPI CD-ROM Drives

1st Drive [LG CD-ROM CRD-8484]

Specifies the boot sequence from the available devices.

←→	Select Screen
↑ ↓	Select Item
+ -	Change Option
F1	General Help
F9	Load Defaults
F10	Save and Exit
ESC	Exit

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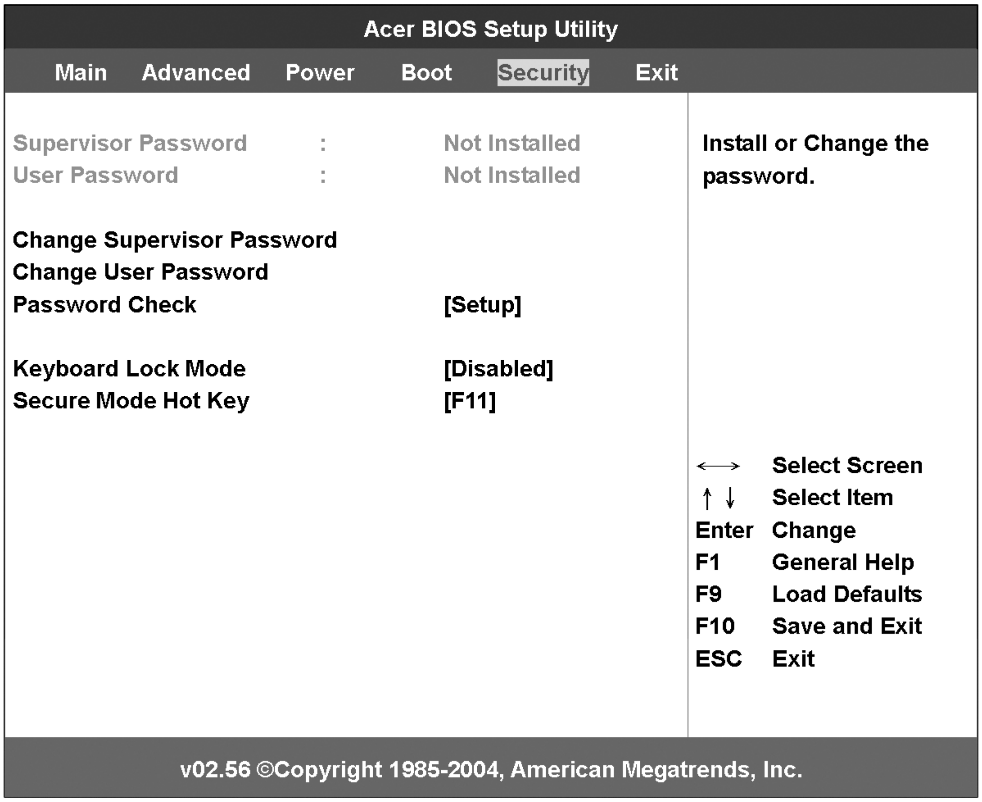
Security

The Security menu allows you to safeguard and protect the system from unauthorized use by setting up access passwords.


Acer BIOS Setup Utility
Main
Advanced
Power
Boot
Security
Exit

Supervisor Password : Not Installed
User Password : Not Installed

Change Supervisor Password
Change User Password
Password Check [Setup]

Keyboard Lock Mode [Disabled]
Secure Mode Hot Key [F11]

Install or Change the password.

←→ Select Screen
↑ ↓ Select Item
Enter Change
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit
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Parameter	Description	Option
Supervisor Password	Prevents unauthorized access to the BIOS setup utility.	**Not Installed** Installed
User Password	Secures your system against unauthorized use. Once you set this password, you have to type it whenever you boot the system. User password is available only when a Supervisor password is set.	**Not Installed** Installed
Change User Password	Press **Enter** to change the User password.	

Parameter	Description	Option
Change Supervisor Password	Press **Enter** to change the Supervisor password.	
Password Check	When this item is set to Setup, the system will ask for the password every time you run the BIOS Setup utility. When set to Always, the system will awalys ask for the password every time it boots.	**Setup** **Always**
Keyboard Lock Mode	Enable or disables the keyboard lock mode.	**Disabled** Enabled
Secure Mode Hot Key	Select a key to be used to serve as hot key in activating Secure Mode.	F11

To set a Supervisor/User password

1 Use the up/down keys to highlight a password parameter (Supervisor Password or User Password) then press **Enter**.

A password box will appear.

2 Type a password then press **Enter**.

The password may consist of up to six alphanumeric characters (A-Z, a-z, 0-9).

3 Retype the password to verify the first entry then press **Enter** again.

After setting the password, the system automatically sets the chosen password parameter to Installed.

To change the Supervisor/User password

1 Use the up/down keys to highlight either change password parameters (Change Supervisor Password or Change User Password) then press **Enter**.

2 Type the original password then press **Enter**.

3 Type a new password then press **Enter**.

4 Retype the password to verify the first entry then press **Enter** again.

To remove the User password

1 Use the up/down keys to highlight the Clear User Password parameter then press **Enter**.

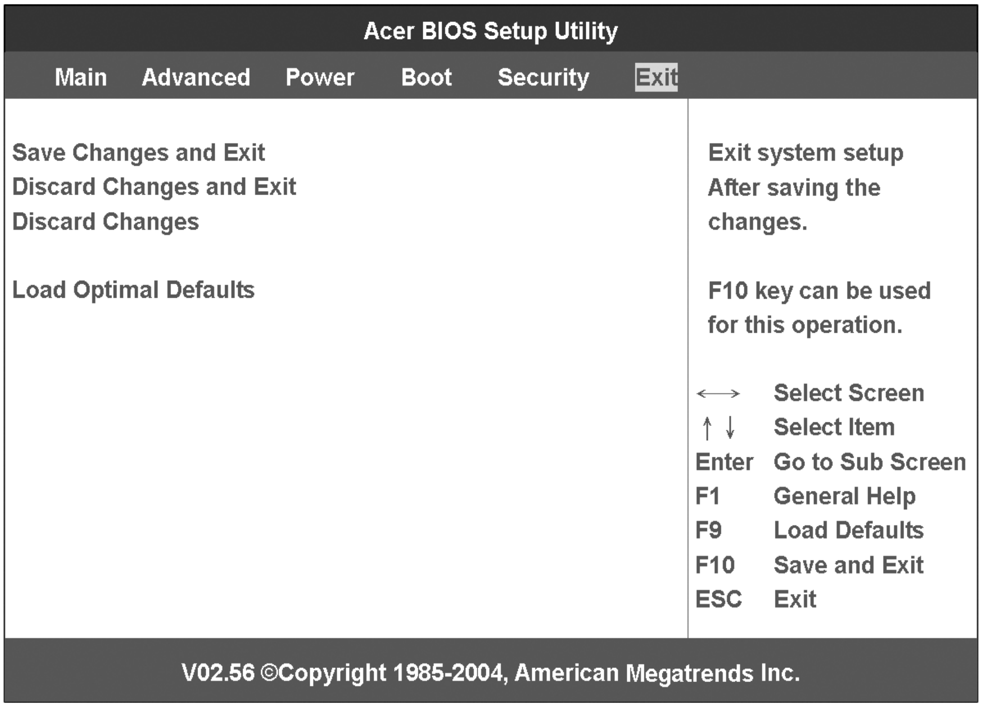
2 Enter the current password then press **Enter**.

3 Press **Enter** twice without entering anything in the new and confirm password fields.

After doing this, the system automatically sets the User password parameter to Not Installed.

Exit

The Exit menu displays the various options to quit from the BIOS setup. Highlight any of the exit options then press **Enter**.


Acer BIOS Setup Utility
Main
Advanced
Power
Boot
Security
Exit
Save Changes and Exit
Discard Changes and Exit
Discard Changes
Load Optimal Defaults
Exit system setup
After saving the
changes.
F10 key can be used
for this operation.
←→ Select Screen
↑↓ Select Item
Enter Go to Sub Screen
F1 General Help
F9 Load Defaults
F10 Save and Exit
ESC Exit
V02.56 ©Copyright 1985-2004, American Megatrends Inc.

Parameter	Description
Save Changes and Exit	Saves changes made and close the BIOS setup.
Discard Changes and Exit	Discards changes made and close the BIOS setup.
Discard Changes	Discards all changes made in the BIOS setup.
Load Optimal Defaults	Loads the optimal settings for all BIOS setup parameters. Optimal settings are quite demanding in terms of resources consumption. If you are using low-speed memory chips or other kinds of low-performance components and you choose to load these settings, the system might not function properly.

5 Troubleshooting

This chapter provides possible solutions for specific problems. If you cannot correct the problem, contact your local Acer representative or authorized dealer for assistance.

Resetting the system

Before going through in-depth troubleshooting, attempt first to perform reset your system using one of the methods below.

To do this	Press
Soft boot reset to clear the system memory and reload the operating system.	Ctrl+Alt+Del
Cold boot reset. Turn the system power off and then on. This clears system memory, restarts POST, reloads the operating system and halts power to all peripherals.	Power off/on

Problems following initial system installation

Problems that occur at initial system startup are usually caused by an incorrect installation or configuration. Hardware failure is a less frequent cause. If the problem you are experiencing is with a specific software application, see "There is problem with the application software" on page 130.

First steps checklist

- AC power available at the wall outlet?
- Are the power supplies plugged in? Check the AC cable(s) on the back of the chassis and at the AC source.
- Are all cables correctly connected and secured?
- Are the processors fully seated in their sockets on the server board?
- Are all standoffs in the proper location and not touching any components, causing a potential short?
- Are all add-in PCI boards fully seated in their slots on the server board?
- Are all jumper settings on the server board correct?
- Are all jumper and switch settings on add-in boards and peripheral devices correct? To check these settings, refer to the manufacturer's documentation that comes with them. If applicable, ensure that there are no conflicts - for example, two add-in boards sharing the same interrupt.
- Are all peripheral devices installed correctly?
- If the system has a hard disk drive, is it properly formatted or configured?
- Are all device drivers properly installed?
- Are the configuration settings made in Setup correct?
- Is the operating system properly loaded? Refer to the operating system documentation.
- Did you press the system power on/off switch on the control panel to turn the server on (power on light should be lit)?
- Is the system power cord properly connected to the system and plugged into a NEMA 5-15R outlet for 100-120 V or a NEMA 6-15R outlet for 200-240 V?
- Are all integrated components from the tested components lists? Check the tested memory, and chassis lists, as well as the supported hardware and operating system list.

Hardware diagnostic testing

This section provides a more detailed approach to identifying a hardware problem and locating its source.

Caution! Turn off devices before disconnecting cables: Before disconnecting any peripheral cables from the system, turn off the system and any external peripheral devices. Failure to do so can cause permanent damage to the system and/or the peripheral devices.

1 Turn off the system and all external peripheral devices. Disconnect each of device from the system, except for the keyboard and the video monitor.

2 Make sure the system power cord is plugged into a properly grounded AC outlet.

3 Make sure your video display monitor and keyboard are correctly connected to the system. Turn on the video monitor. Set its brightness and contrast controls to at least two thirds of their maximum ranges (see the documentation supplied with your video display monitor).

4 If the operating system normally loads from the hard disk drive, make sure there is no diskette in drive A and no CD-ROM disk in the CD-ROM drive.

5 If the power LED does light, attempt to boot from a floppy diskette or from a CD-ROM disk.

6 Turn on the system. If the power LED does not light, see “Power indicator does not light” on page 127.

Verifying proper operation of key system lights

As POST determines the system configuration, it tests for the presence of each mass storage device installed in the system. As each device is checked, its activity light should turn on briefly. Check for the following:

Does the diskette drive activity light turn on briefly? If not, see "FDD activity indicator does not light." on page 127.

Confirming loading of the OS

Once the system boots up, the operating system prompt appears on the screen. The prompt varies according to the operating system. If the operating system prompt does not appear, see "No Characters Appear on Screen" on page 130.

Specific problems and corrective actions

The following contains specific problems that may arise during the use of your server. Possible solutions are listed for each problem.

Power indicator does not light.

Do the following:

- Make sure the power button on the front panel is turned on.
- Make sure the hot-swap power supply module is propely installed.

  Refer to “Installing a power supply module” on page 71 for instructions.
- Make sure the power cable is connected correctly.
- Make sure that the wall outlet has power. Test it by plugging another device.
- Remove all add-in cares and see if the system boots. If successful, add the cards back in one at a time with a reboot between each addition.
- Make sure the memory modules comply with the system requirements.
- Make sure the memory modules have been populated according to the system requirements.
- Remove the memory modules and reseat them.
- Make sure the CPU(s) comply with the system requirements.
- Make sure the CPU(s) have been populated according to the system requirements.

FDD activity indicator does not light.

Do the following:

- Make sure the FDD and signal cables are properly connected.
- Check that relevant switches and jumpers for the FDD are set correctly.
- Check that FDD is properly configured.
- If you are using the onboard diskette controller, use BIOS setup on page 81 to make sure that onboard “Floppy A” is set to **1.44 MB, 3.5-inch**.

HDD activity indicator does not light.

If you have installed one or more hard drives in your system, do the following:

- Make sure the power and signal cables are connected correctly.
- Check that relevant switches and jumpers on the hard drive and SCSI or SATA backplane are set correctly.

CD drive activity indicator does not light.

Do the following:

- Make sure the power and signal cables are properly installed.
- Check that relevant switched and jumpers on the drive are set correctly.
- Check that drive is properly configured.
- Check that onboard IDE controller is enabled in the BIOS setup.

CD tray cannot be ejected.

Do the following:

- Insert the tip of a paperclip into the small hole on the CD drive. Slowly pull the tray out from the drive until the tray is fully extended then remove the disc.

CD drive cannot read a CD.

Do the following:

- Make sure you are using the correct type of CD.
- Make sure the CD is properly seated in the drive.
- Make sure the disc is unscratched.
- Make sure all cables are connected to the CD drive.

New memory modules installed are not detected.

Do the following:

- Make sure the memory modules are properly seated on the DIMM slots.
- Make sure the memory modules comply with the system requirements.
- Make sure the memory modules have been populated according to the system requirements.
- If you are using DDR2 modules, make sure that they are installed in pairs. Refer to “Memory configurations for the DDR2 DIMMs” on page 61.

Network status indicator does not light.

Do the following:

- Check the cabling and network equipment to make sure that all cables are properly connected.
- Reinstall the network drivers.
- Try another port or hub on the switch.

Network activity indicator does not light.

Do the following:

- Make sure the correct network drivers are loaded on your system.
- Network might be idle. Try accessing the server.

Server hangs when the drivers are loaded.

- Change the PCI interrrupt settings.

External device connected to a USB connector does not work.

Do the following:

- Reduce the number of external devices connected to a USB hub.
- Refer to the documentation that comes with the device.

There is problem with the application software.

Do the following:

- Verify that the software is properly configured for the system. Refer to the software installation and operation documentation for instructions on setting up and using the software.
- Try a different version of the software to see if the problem is with the copy you are using.
- Make sure all cables are properly connected.
- If other software runs correctly on the system, contact your vendor about the defective software.

No characters appear on the screen.

Check the following:

- Is the keyboard functioning? Test it by turning the “Num Lock” function on and off to make sure the Num Lock light is functioning.
- Is the video monitor plugged in and turned on? If you are using a switch box, is it switched to the correct system?
- Are the brightness and contrast controls on the video monitor properly adjusted?
- Is the video monitor signal cable properly installed?
- Does this video monitor work correctly if plugged into a different system?
- Is the onboard video controller enabled in the BIOS?

- Remove all add-in cares and see if the system boots. If successful, add the cards back in one at a time with a reboot between each addition.
- Make sure the memory modules comply with the system requirements.
- Make sure the memory modules have been populated according to the system requirements.
- Remove the memory modules and reseat them.
- Make sure the CPU(s) comply with the system requirements.
- Make sure the CPU(s) have been populated according to the system requirements.

If you are using an add-in video controller board, do the following:

1 Verify that the video works using the onboard video controller.

2 Verify that the video controller board is fully seated in the server board connector.

3 Reboot the system for changes to take effect.

4 If there are still no characters on the screen after you reboot the system and POST emits a beep code, write down the beep code you hear. This information is useful for your service representative.

5 If you do not receive a beep code and characters do not appear, the video display monitor or video controller may have failed. Contact your service representative or authorized dealer for help.

Appendix A: System management

This appendix shows you how to install the ASM software package and gives information about the software program and utilities bundled with your server.

Your Altos G710 server supports the following system management utilities:

- ASM (Acer Server Management)

  This utility allows you to spot errors or potential trouble spots in the network servers through a single management station. For details go to page 137.

- ePanel

  This utility allows you to view the configuration information of the Altos G710. For details go to page 139.

- RAID configuration

  Your system may be bundled with a SCSI RAID configuration utility. This utility lets you change the RAID configuration of your hard disk. For details go to page 140.

ASM

Acer Server Management is a server management tool. It is specially designed to help spot errors or potential trouble spots in the network servers through a single management station. ASM can send a query to a remote server over the network to request information such as system hardware and software configuration, system resource usage, and system performance.

The complete ASM package consists of two major components — the ASM Agent and the ASM Console. The ASM Agent are the servers to be managed on the network. The ASM Console is a Windows-based monitoring station that communicates with the ASM Agents and can be installed on any agent's workstation on the network.

System requirements

ASM requires TCP/IP connectivity between the ASM Agent and the ASM Console.

ASM Agent

- Intel Pentium III (500 MHz) or higher processor
- 128 MB of RAM
- SCSI/IDE hard drive with at least 100 MB free hard disk space
- Microsoft Windows NT 4.0 or Windows 2000 Server/Advanced Server operating system

ASM Console

- Intel Pentium III (500 MHz) or higher processor
- 128 MB of RAM
- SCSI/IDE hard drive with at least 100 MB free hard disk space
- Microsoft Windows 2000 Professional/XP/Server/Advanced Server operating system
- Ethernet card

System setup

Make sure that your system meets the requirements listed above before proceeding. You may also want to change your screen resolution to 800 x 600 or higher for optimum viewing.

Installing ASM Agent

Follow the steps below:

1. Log in to the managed server using the Administrator account.
2. Insert the EasyBUILD Management CD into the server's CD-ROM drive. The installation sequence will automatically be displayed.
3. Select the option for ASM installation. The installation wizard will be initialized.
4. Follow all onscreen instructions to complete the installation.

   For detailed instructions on installing ASM Agent, refer to the ASM User's manual.

To launch the program, on the Windows taskbar click on the **Start** button, point to **Programs**, select **Acer Server Management Suite** then click **ASM Agent**.

Installing ASM Console

Follow the steps below:

1. Log in to the target Windows-based PC using the Administrator account.
2. Insert the EasyBUILD Management CD into the computer's CD-ROM drive. The installation sequence will automatically be displayed.
3. Select the option for ASM installation. The installation wizard will be initialized.
4. Follow all onscreen instructions to complete the installation.

   For detailed instructions on installing ASM Console, refer to the ASM User's manual.

To launch the program, on the Windows taskbar click on the **Start** button, point to **Programs**, select **Acer Server Management Suite** then click **ASM Console**.

ePanel

ePanel lets you see at a glance the Altos G710 configuration information. You can view the server's system information, system health, system resource utilization, and customize the ePanel based on your personal requirements and preferences.

For detailed information on how to use the ePanel utility, see "Appendix D: ePanel" on page 163.

RAID configuration

The SCSI RAID configuration utility allows you to change the default RAID configuration, such as the system volume of your hard disk.

Caution! Using the RAID Configuration utility erases all data previously saved in the hard drives. Make sure that you backup important files before starting the configuration process.

For detailed information on how to use the SCSI RAID configuration utility, refer to “Appendix C: SCSI RAID configuration” on page 157.

Appendix B: Acer Altos G710 rack installation guide

This appendix shows you how to set up the Altos G710 server in a rack mount configuration.

Setting up the system rack

Important! Observe the electrostatic discharge (ESD) precautions indicated on page 39 when perfoming the following procedures. Do not attempt the procedures described in the following sections unless you are a qualified technician.

Equipment rack precautions

Follow the rack manufacturer's safety and installation instructions for proper rack installation.

The following additional rack safety installation measures should be considered:

- Anchor the equipment rack

  The equipment rack must be anchored to an unmovable suitable support to prevent the rack from falling over when one or more systems are fully extended out of the rack assembly. You must also consider the weight of any other devices installed in the rack assembly. The equipment rack must be installed according to the manufacturer's instructions.

- Main AC power disconnect

  You are responsible for installing an AC power disconnect for the entire rack unit. This main disconnect must be readily accessible, and it must be labeled as controlling power to the entire unit, not just to the system(s).

- Earth ground the rack installation

  To avoid the potential for an electrical shock hazard, the rack assembly itself must be suitably earth grounded, according to your local regional electrical codes. This typically will require the rack to have its own separate earth ground. We recommend you consult your local approved electrician.

- Elevated operating ambient temperature

  The maximum operating temperature of the system is 35 °C (95°F). Careful consideration should be given to installing the system in an environment compatible with the 35 °C (95°F) maximum ambient temperature.

- Reduced airflow

  The amount of airflow required for the safe operation of the equipment should not be compromised when installing the system in a rack.

- Mechanical loading

  Exercise care when mounting the system in a rack to avoid any accidents.

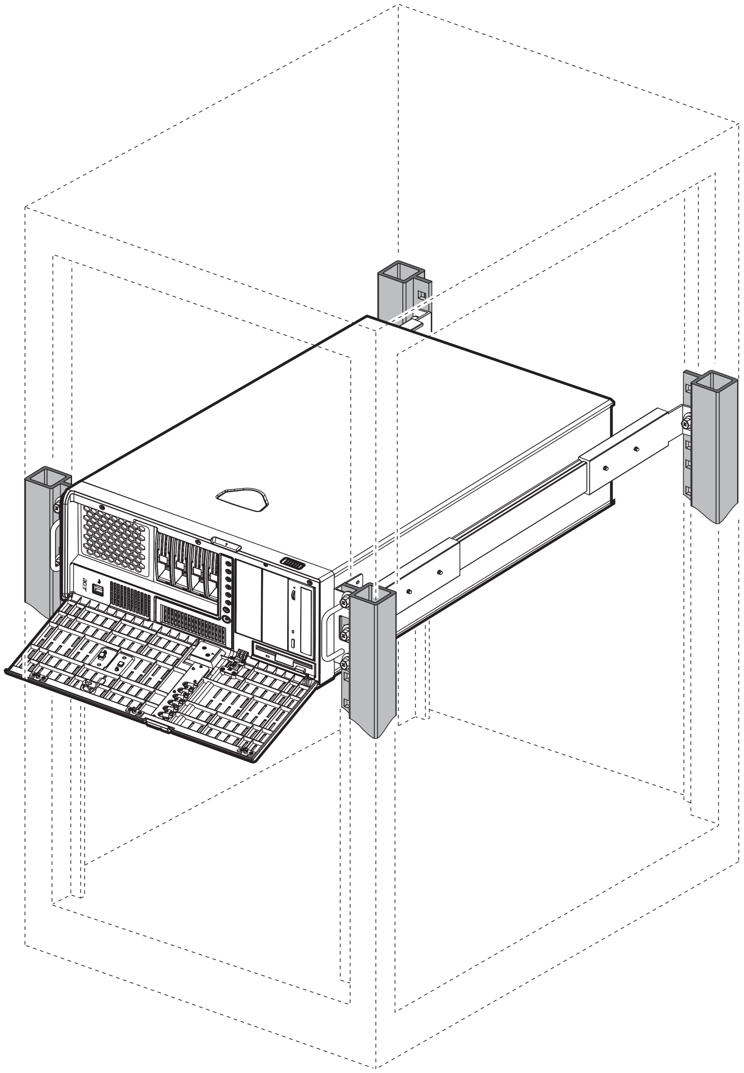
- Circuit overloading

  Appropriate consideration should be given when connecting the supply circuit to the system to avoid any circuit overload. The system name plate rating should be used when addressing concerns about circuit overload.

System rack installation

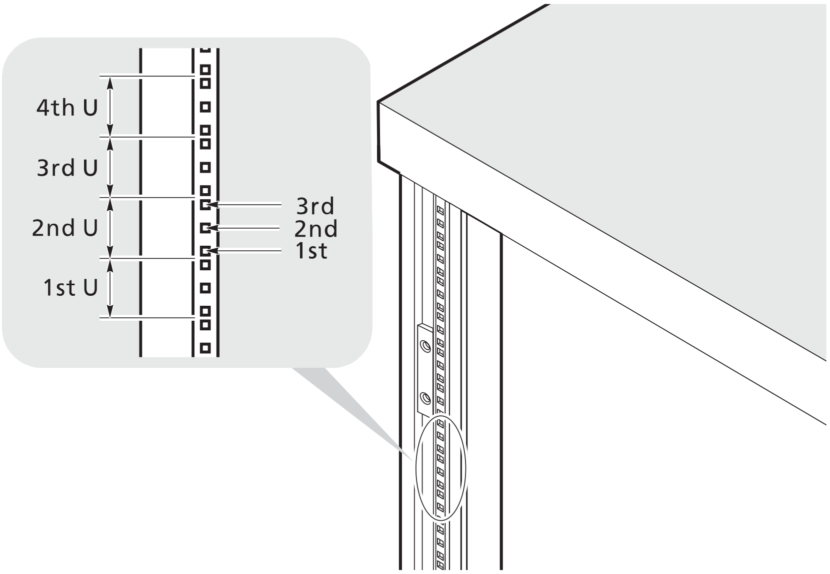
The Altos G710 server system can also be mounted in a rack-model position. A rack mount kit is available for customers who want to convert a tower-mounted system to rack-model design. To purchase a rack mount kit, contact your local Acer representative or order directly from http://www.acer.com/.

The figure below shows the Altos G710 server in a rack-mount position.



Vertical mounting hole pattern

The four vertical rails of the system rack contain mounting holes arranged in a manner shown in the figure below:



The system occupies 5U in the rack. Count the U positions and hole numbers from the bottom up.

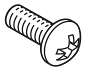
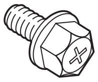
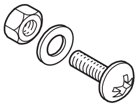
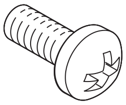
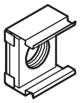
The distance from the center of two holes with closer spacing to the center of the next pair is equivalent to 1U.

Note: The unit of measurement used in this guide is "U" (1U = 1.75 inches or 44.45 mm). The total sum of the heights of all components in the rack measured in "U" cannot exceed the height of the rack. For more information, refer to the documentation that came with your system rack.

When installing components, you must start your measurement from the center of the two holes with closer spacing. Otherwise, the screw holes on the component may not match those on the rack.

Screw types used

The following screws are used in the assembly of the Altos G710 system and bundled rack-mountable components:

Screw type and part number	**Figure**	**Usage**
#8-32 x 0.25 inch		Securing the inner mounting rails to the system
Hex head #6-32 0.25 inch		Securing the side handles to the server
M4 x L8 M4 nut		Securing the mounting brackets to the inner sliding piece
M6 x L10 M6 cage nut		• Securing the cable arm to the rack • Securing the component rail to the rack • Securing the system components to the rack
		Supports the M6 metal screws for securing system components to the rack

Installing the system into the rack

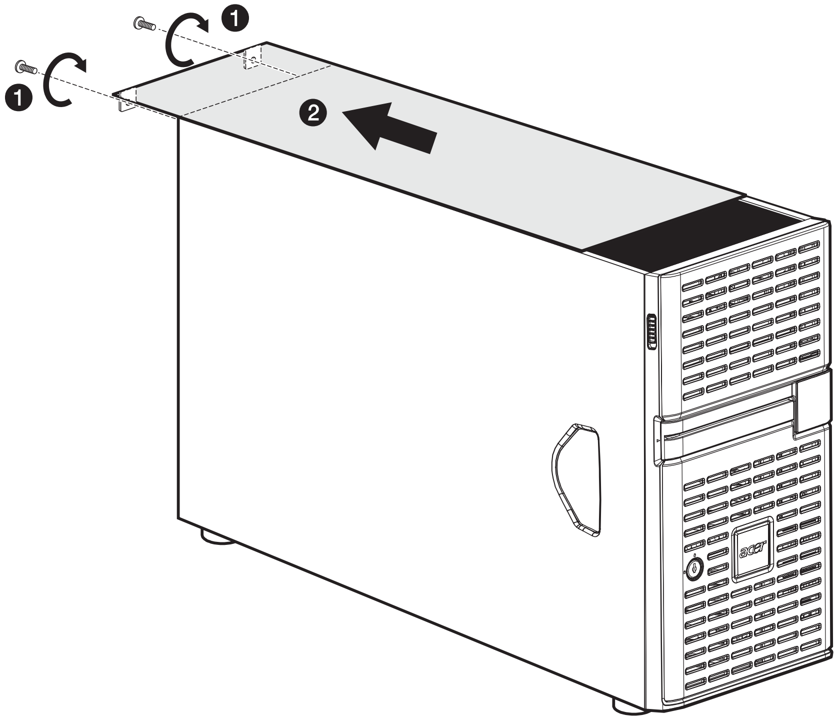
Caution! To minimize the chances of injuries, make sure that two or more people help in installing the server.

To install the system into a four-post rack

1 Remove the top panel from the server by following the steps below:

  (1) Remove the two screws that secure the top panel to the chassis.

  (2) Slide the top panel slightly backward, then detach it from the chassis.

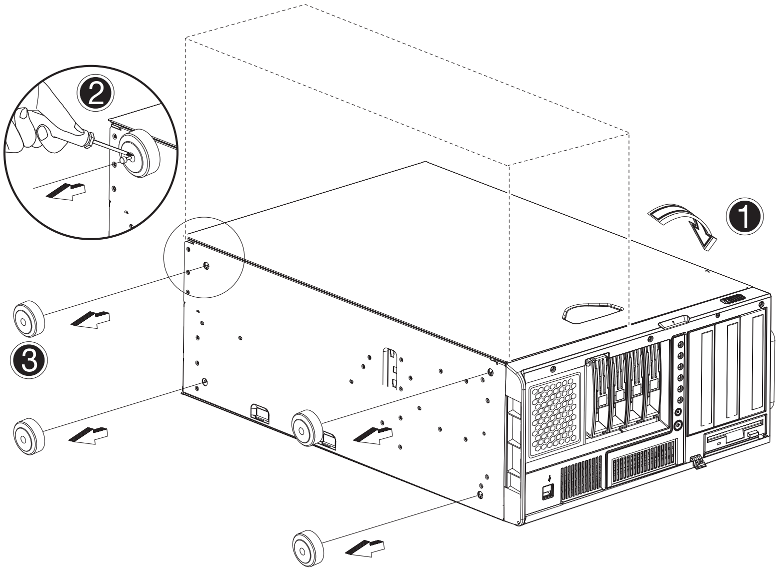


2 Remove the foot stands from the server by the following the steps below:

  (1) Lay the server on its side on a flat, stable surface **(1)**.

  (2) Remove the screws that hold the foot stands to the bottom of the chassis **(2)**. Keep these for later use.

(3) Pull the stands from the server **(3)**.

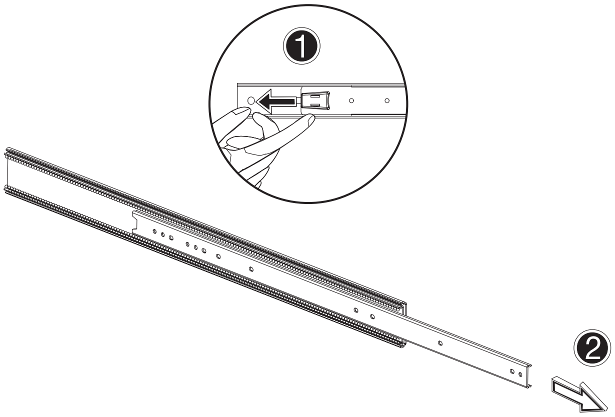


3 Remove the inner rails from the mounting rails by following the steps below:

Note: The rack mount kit contains a bag of screws, two sets of side handles, rack brackets and mounting rails. The side handles are attached to the sides of the server. The rack brackets attach the mounting rails to the server. The mounting rails allow the server to slide in and out of the rackmount for maintenance purposes. Each mounting rail consists of: inner rail, middle slide, and fixed outer rail. The fixed outer piece is screwed onto the rack bracket with a M4 x L8 metal screw and nut, an inner rail is attached to the sides of the server with the #8-32 screws and an middle sliding piece controlled by a steel ball gearing movement.

(1) Extend the inner rail from the mounting rail until the rail release latch clicks.

(2) Depress the release latch and slip the inner rail out.



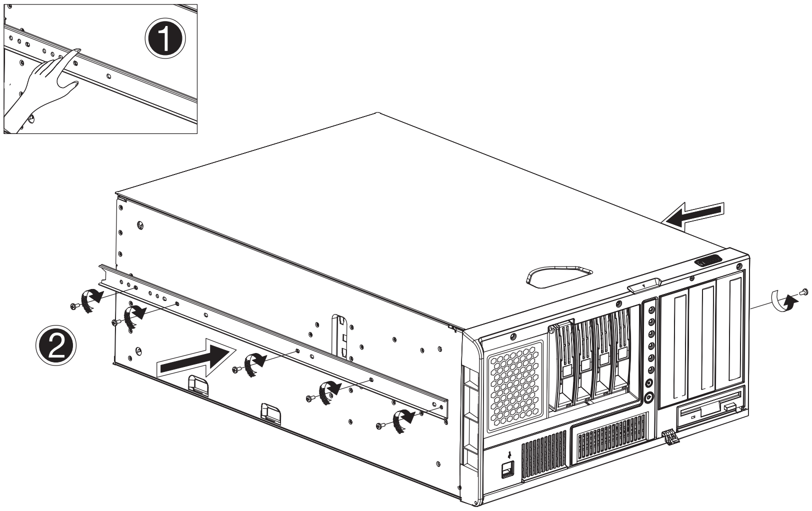
(3) Do the same thing to the other mounting rail.

4 Attach the inner rails to the server by following the steps below:

(1) Align the inner rails to the top and bottom sides of the server.

(2) Secure the rails to the server using the ten #8-32 screws (see page 147) from the rack mount kit.

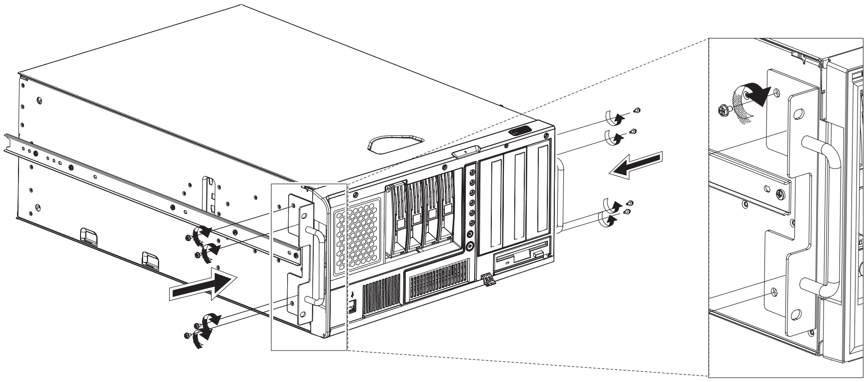
Make sure the release latches are at the front of the system.



5 Attach the side handles to the server by following the steps below:

(1) Align the two side handles to the top and bottom sides of the server.

(2) Secure the side handles to the server using the eight hex head #6-32 screws (see page 147) from the rack mount kit.



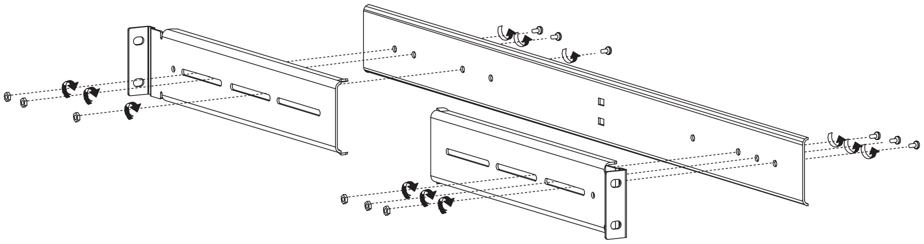
6 Set the server aside.

7 Install the rack brackets to the rack by following the steps below:

(1) Align the rack brackets to the mounting rail until the six screw holes become visible.

(2) Secure the rack brackets to the mounting rails using the six M4 x L8 metal screws and nuts (see page 147) from the rack mount kit.

Tighten the screws but leave them loose enough to allow length adjustment when installing the mounting rails to the rack.



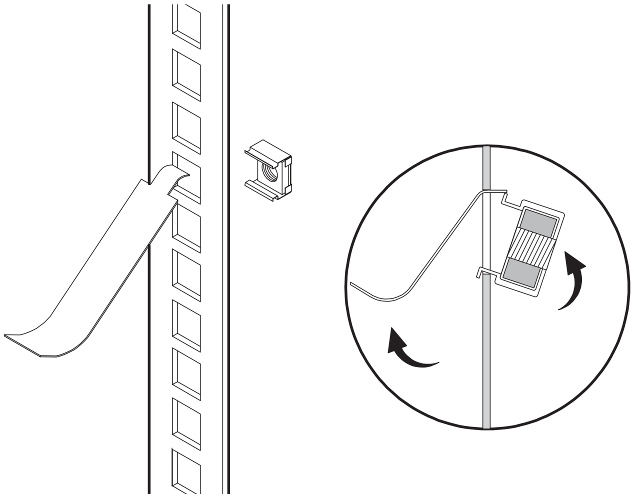
(3) Attach the other rack brackets to the remaining mounting rail.

8 Install the M6 cage nuts (see page 147) into the rail by following the steps below:

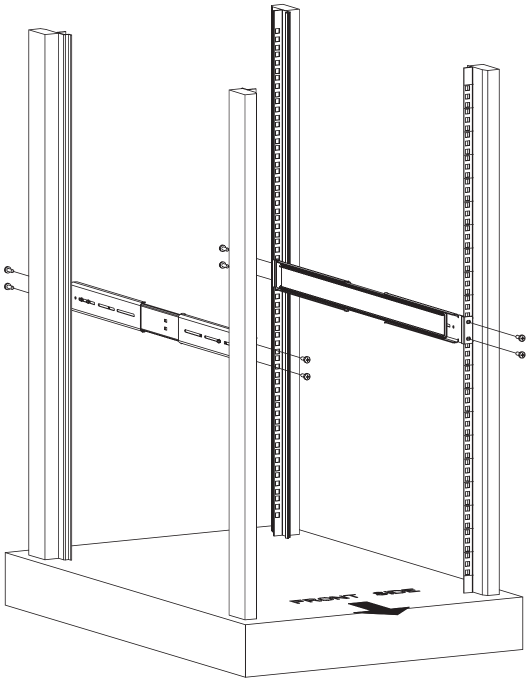
(1) Insert the lower lip of the cage nut over the bottom of the opening at the back of a rail.

(2) With your fingers, pinch the cage nut rack fastener and push in until the top lip locks into position.

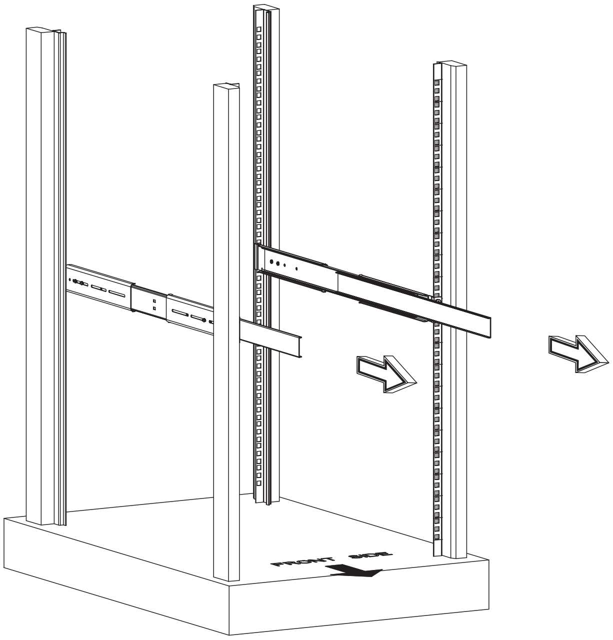
(3) Repeat this process to install the other cage nuts in their appropriate locations.



9 Install the mounting rails to the rack by using four M6 x L10 metal screws (see page 147) for each mounting rail.



10 Extend the middle sliding piece of each mounting rail forward until you hear a click sound.



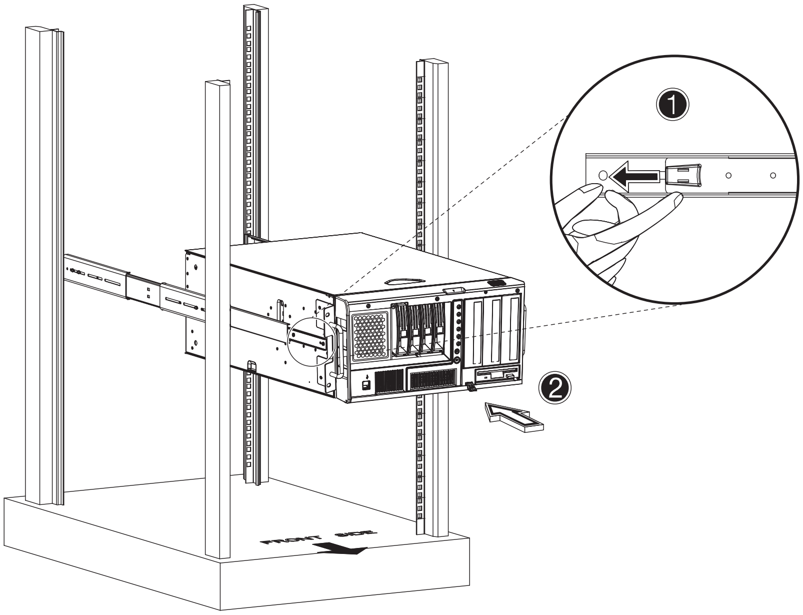
11 Install the server into the rack by following the steps below:

(1) Carefully align the inner rails attached to the server with the fully extended mounting rails on the rack.

(2) Press the release latch on both sides of the server **(1)**.

(3) Slide the server into the rack then push the server into the rack until you hear a click sound **(2)**.

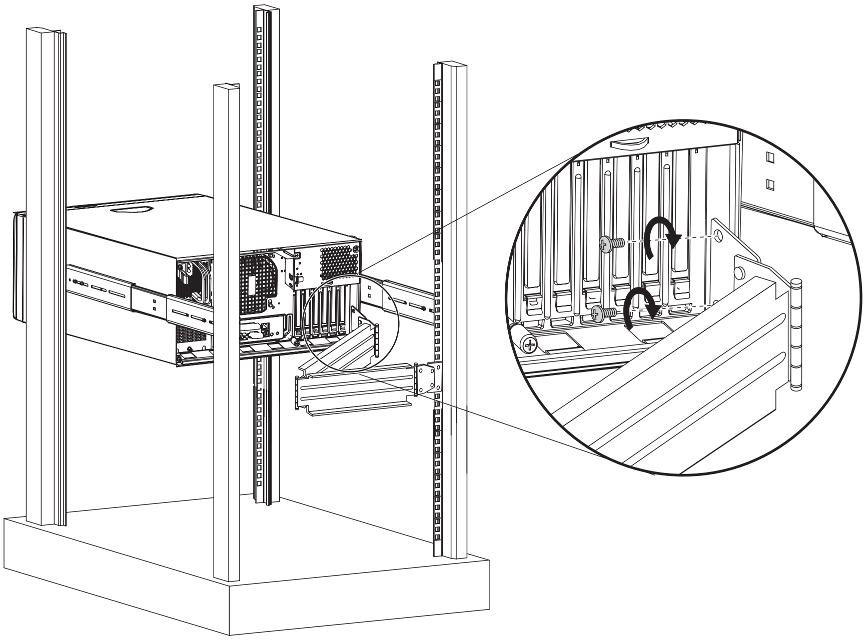
Caution! To avoid personal injury, care should be taken when pressing the inner rail release latches and sliding the component into the rack.



12 Attach the cable arm to the system by following the steps below:

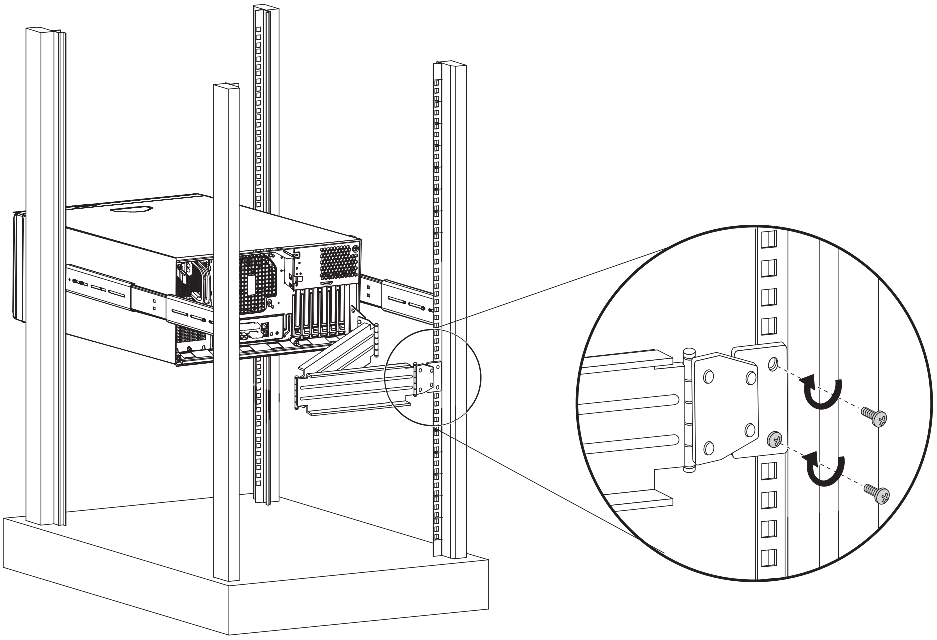
The optional cable carm allows you to tie-wrap all cables to and from the system. As you slide the system in and out of the rack, the cable arm collapses and extends, keeping the cables untangled and attached to the system.

(1) Attach the cable arm to the rear of the system using two M4 x L8 metal screws and nuts (see page 147).



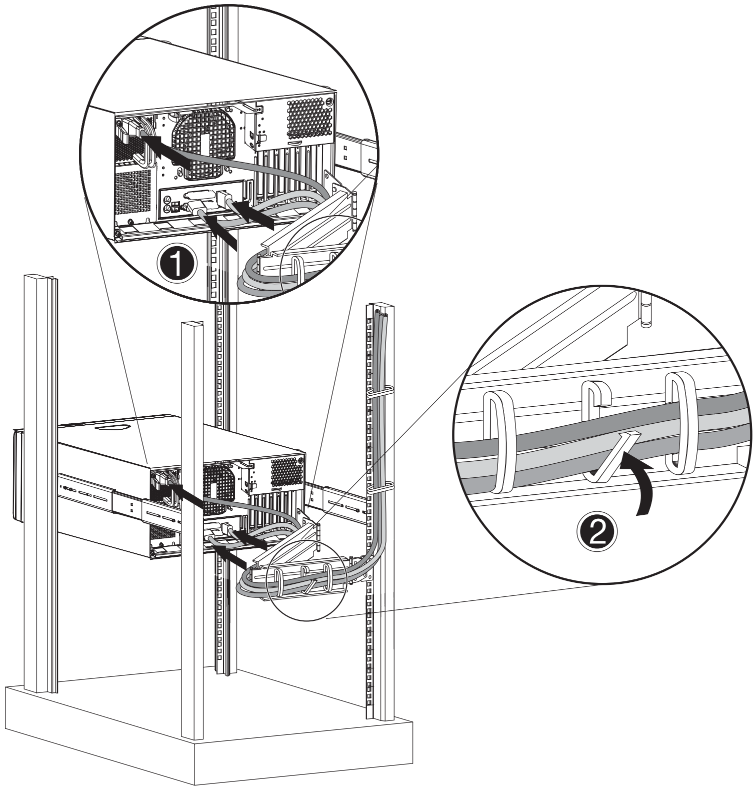
(2) Install two cage nuts into the rail to which the cable arm is to be attached.

(3) Extend the cable arm enough to attach it to the rail using two M6 x L10 metal screws (see page 147).



(4) Insert the power, peripheral and networking cables into their appropriate ports **(1)**.
Refer to "Connecting peripherals" on page 28 for detailed instructions.

(5) Bundle all cables to the cable arm using the cable clamps **(2)**.



Appendix C: SCSI RAID configuration

This appendix shows you how to create a RAID volume in your SCSI drives.

Configuring the SCSI/SCSI RAID HBA

This section shows how to create a RAID 1 (mirror) volume. This feature requires the installation or presence of a LSI Logic 53C1030 SCSI controller.

Using the SCSI HBA setup utility

During bootup, press **Ctrl+C** to enter the LSI Logic Configuration screen.

Loading the HBA default settings

1. In the LSI Logic MPT SCSI setup screen, press **F2**.
2. Select **Global Properties**, then select **Restore Defaults**.
3. Press **Esc**, then select **Save changes then exit this menu**.
4. Select **53C1020/53C1030**, then press **Enter**.
5. Select **Restore Defaults**, then press **Enter**.
6. Press **Esc**, then select **Save changes then exit this menu**.

Using the SCSI RAID HBA setup utility

Creating a RAID 1 volume with a hot spare disk

1. In the LSI Logic MPT SCSI setup screen, select **53C1020/53C1030**, then press **Enter**.
2. Select **RAID Properties**, then press **Enter**.
3. In the Array Disk field, press the spacebar.

   If you change the settings in the Array Disk field, the following messages appear:

   ```
   F3 - Keep Data (Create 2 disk arrays)
   ```

   ```
   Delete - Erase Disk (Create 2 to 6 disk arrays)
   ```
4. Press the **Delete** key to erase all data on the screen.
5. In the Hot Spare field, press the spacebar.

If you change the settings in the Hot Spare field, the following messages appear:

`WARNING: Data on drive will be LOST!`

`Press DELETE if data loss OK or any other key to cancel.`

6. Press the **Delete** key to ignore.
7. Press **Esc**, then select **Save changes then exit this menu**.
8. To close the utility and reboot the server, follow the steps below:
    (1) Press **Esc**, then select **Exit the Configuration Utility**. The *`Global properties saved. Hit any key to reboot`* message appears.
    (2) Press any key to reboot the server.

RAID volume initialization

After you create the RAID volume and saved the changes, the disk controller will automatically initialize the RAID volume. LSI Logic 53C1030 supports background initialization, there's no need to wait for the initialization to complete. Close the LSI Logic Configuration Utility after saving the changes.

Using the MegaRAID configuration utility

Turn on the system. When prompted, press **Ctrl+M** to enter the MegaRAID configuration utility. After a few seconds, the Management menu appears.

Loading the RAID card default setting

1. In the Management menu, select **Objects**, then select **Adapter**. The current adapter settings appear.
2. Select **Factory Default**, then **Yes** to load the default settings.
3. Press **Ctrl+Alt+Del** to reboot the server.

Creating a RAID 1 volume

1 After rebooting the server, press **Ctrl+M** to enter the MegaRAID Configuration screen. The Management menu appears.

2 Select **Configuration**. The Configuration menu appears.

3 Select **New Configuration**, then select **YES**. An array selection window displays the devices connected to the current controller.

4 Use the arrow keys to select a specific drive, then press the spacebar to associate the selected drive with the current array.

In the menu, the selected drive's indicator will change from `READY` to `ONLINE A`[array number]-[drive number].
For example ONLINE A1-2 means disk drive 2 in array 1.

5 Add two drives to the current array, then press **Enter**.

6 Press **F10** to configure the logical drives. The default RAID level for 2 disk drives is RAID 1.

7 Select **Accept** to use the default setting, then press **Enter**.

8 Press **Enter** again to end the array configuration.

9 Select **YES to Save Configuration**, and press any key to return to the Configuration menu.

Assigning a hot spare disk

1 In the Configuration menu, select **Add/View Configuration**.

2 Use the arrow keys to select a specific drive, then press **F4** to set the drive as a hot spare disk.

3 Select **YES**. In the menu, the selected drive's indicator will change from *`READY`* to *`HOTSP`*.

4 Press **Esc** to end the array configuration.

5 Select **YES to Save Configuration**, then press any key to return to the Configuration menu.

Initializing a RAID volume

1 Press **Esc** to return to the Management menu.

2 Select **Initialize**. All logical drives will appear under Logical Drives.

3 Using the spacebar, select the drive that you want to initialize. The selected drive becomes yellow.

4 Press **F10**, then select **YES** to start initialization.

5 When initialization is complete, press any key to continue.

6 Press **Esc** to return to the Management menu.

7 To exit the utility and reboot the server, follow the steps below:

  (a) In the Management menu, press **Esc**.

  (b) Select **YES**.

  (c) Press **Ctrl+Alt+Del** to reboot the server.

8 Install an Operating System to the RAID array.

Appendix D: ePanel

This appendix gives information on how to use the ePanel utility. ePanel utility allows you to view and configure the server's system configuration information.

Overview

ePanel lets you see at a glance the Altos G710 configuration information. You can view the server's system information, system health, system resource utilization, and customize the ePanel based on your personal requirements and preferences. The configuration program built into the ePanel allows you configure the network settings, view general data about the server and power off or restart the server.

Note: ePanel runs only on Microsoft® Windows® 2000 and Windows® Server 2003 platform.

ePanel include the following major components:

- ePanel Device Driver

  ePanel Device Driver is required for the ePanel Agent to communicate with the ePanel module. It is necessary to install this driver to allow the system to recognize the ePanel module.
- ePanel Agent

  ePanel Agent requires ePanel Device Driver running otherwise the configuration program built into the ePanel module cannot communicate with ePanel Agent. It responds to a request and query for a server's system configuration. The ePanel Agent contains drivers which are necessary for ensuring a graceful shutdown on the monitored server in the event of an AC power supply failure.
- ASM Agent

  ASM Agent supports ePanel Agent for monitoring the server's hardware environment (such as voltage, temperature and fan) for faults.
- Microsoft .NET Framework

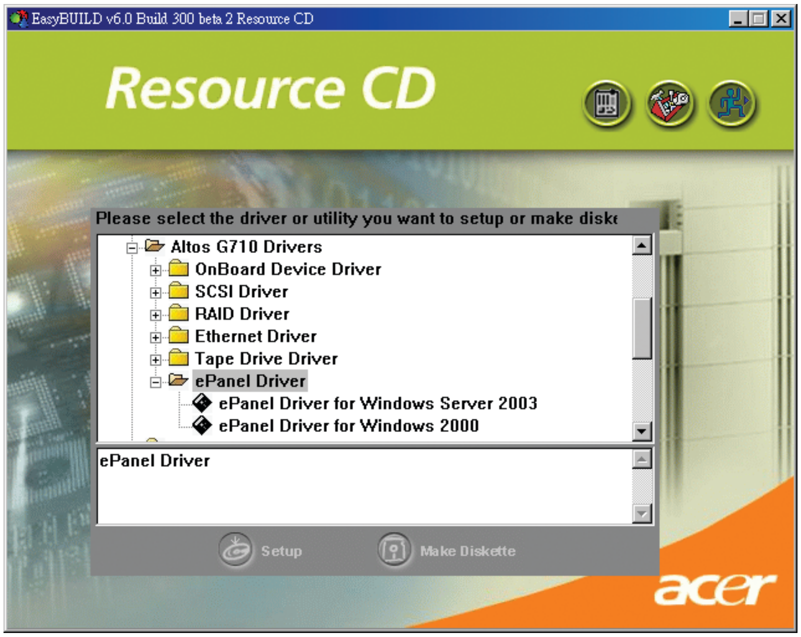
  Microsoft .NET Framework is an integral Windows component for building and running the next generation of software applications and Web services. The .NET Framework must be installed to a Windows 2000 platform in order to use the ePanel utility.

Installing ePanel

Before you begin installation, make sure you have a Microsoft Windows 2000 Server (SP4) or Windows Server 2003 OS running on your system.

1 Install the ePanel Device Driver:

(1) Insert the EasyBUILD Reource CD into the server's CD-ROM drive. The EasyBUILD Resource CD window appears.


EasyBUILD v6.0 Build 300 beta 2 Resource CD
Resource CD
Please select the driver or utility you want to setup or make diske
Altos G710 Drivers
OnBoard Device Driver
SCSI Driver
RAID Driver
Ethernet Driver
Tape Drive Driver
ePanel Driver
ePanel Driver for Windows Server 2003
ePanel Driver for Windows 2000
ePanel Driver
Setup
Make Diskette
acer

(2) Double-click the **ePanel Driver** folder.

(3) Select a driver compatible with your OS. Click **ePanel Driver for Windows Server 2003** or **ePanel Driver for Windows 2000**.

(4) Click **Setup**. The installation wizard will be initialized.

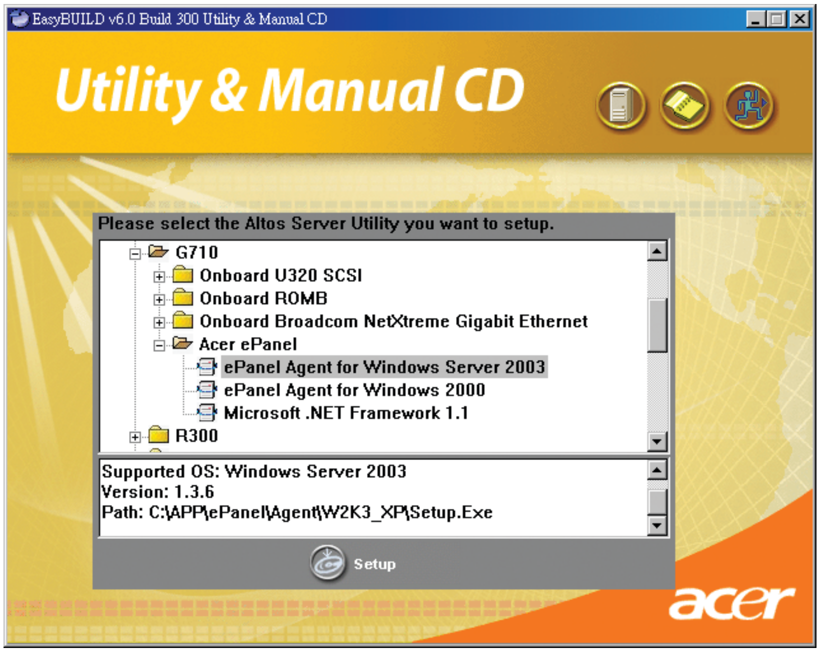
(5) Follow all onscreen instructions to complete installation.

If you are using Windows 2000, install Microsoft .Net Framework. Go to step 2.

If you are using Windows Server 2003, proceed to step 3 for instructions on how to install the ePanel Agent.

2 Install the Microsoft .Net Framework:

(1) Insert the EasyBUILD Manual CD into the server's CD-ROM drive. The EasyBUILD Utility & Manual CD window appears.


EasyBUILD v6.0 Build 300 Utility & Manual CD
Utility & Manual CD
Setup
acer

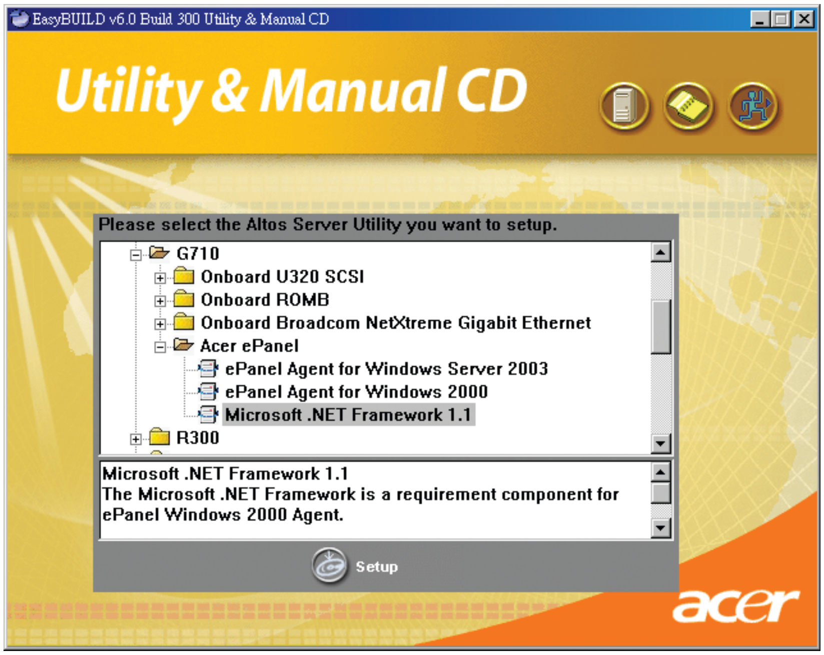
Please select the Altos Server Utility you want to setup.

- G710
  - Onboard U320 SCSI
  - Onboard ROMB
  - Onboard Broadcom NetXtreme Gigabit Ethernet
  - Acer ePanel
    - ePanel Agent for Windows Server 2003
    - ePanel Agent for Windows 2000
    - Microsoft .NET Framework 1.1
- R300

Supported OS: Windows Server 2003
Version: 1.3.6
Path: C:\APP\ePanel\Agent\W2K3_XP\Setup.Exe

(2) Double-click the **Acer ePanel** folder.

(3) Click **Microsoft .NET Framework 1.1**, the path to the .Net installer appears.


EasyBUILD v6.0 Build 300 Utility & Manual CD
Utility & Manual CD
Setup
acer

Please select the Altos Server Utility you want to setup.

- G710
  - Onboard U320 SCSI
  - Onboard ROMB
  - Onboard Broadcom NetXtreme Gigabit Ethernet
  - Acer ePanel
    - ePanel Agent for Windows Server 2003
    - ePanel Agent for Windows 2000
    - Microsoft .NET Framework 1.1
- R300

Microsoft .NET Framework 1.1
The Microsoft .NET Framework is a requirement component for ePanel Windows 2000 Agent.

(4) Click **Setup**. The installation wizard will be initialized.

(5) Follow all onscreen instructions to complete installation.

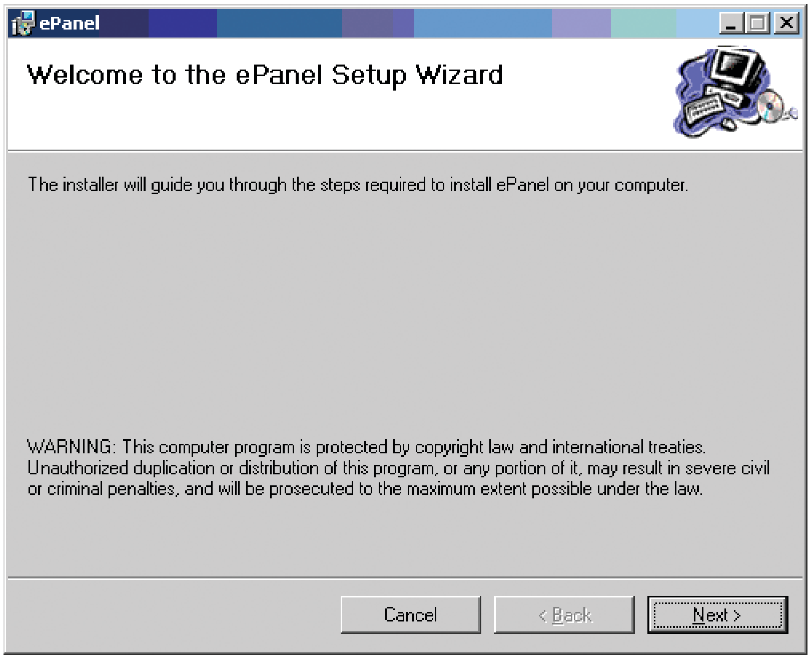
3 Install ePanel Agent:

(1) Insert the EasyBUILD Manual CD into the server's CD-ROM drive. The EasyBUILD Utility & Manual CD window appears.

(2) Double-click the **Acer ePanel** folder.

(3) Select an agent compatible with your OS. Click **ePanel Agent for Windows Server 2003** or **ePanel Agent for Windows 2000**.

(4) Click **Setup**. The installation wizard will be initialized.



Welcome to the ePanel Setup Wizard

The installer will guide you through the steps required to install ePanel on your computer.

WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.

(5) Follow all onscreen instructions to complete installation.

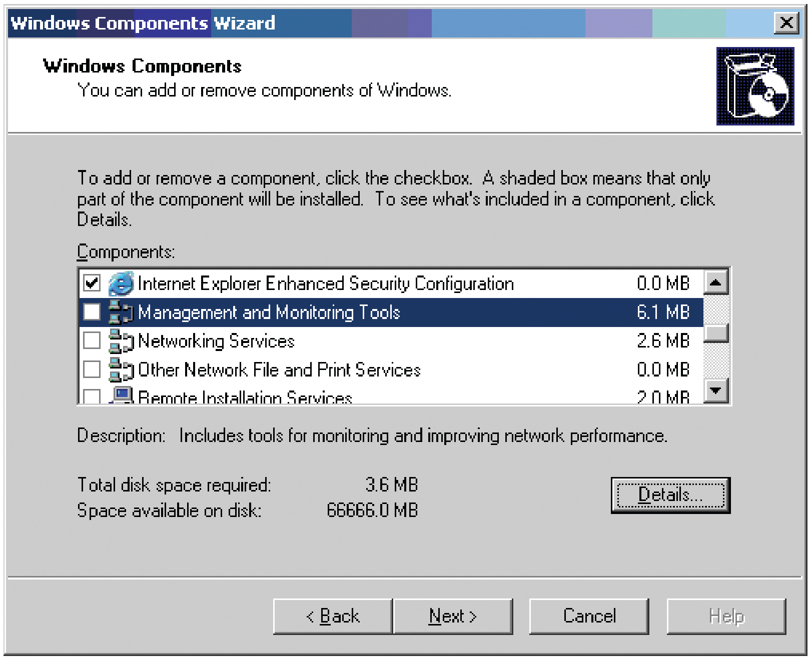
Before you install the ASM Agent, be sure to install the SNMP component.

4 Install the SNMP component:

(1) On the Windows taskbar, click the **Start** menu, point to **Settings** then select **Control Panel**.

(2) In the Control Panel Window, double-click the **Add/Remove Programs** icon. The Add/Remove Programs window appears.

(3) On the left pane, click the **Add/Remove Windows Components** option. The Windows Components Wizard window appears.



Windows Components
You can add or remove components of Windows.

To add or remove a component, click the checkbox. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.

Components:

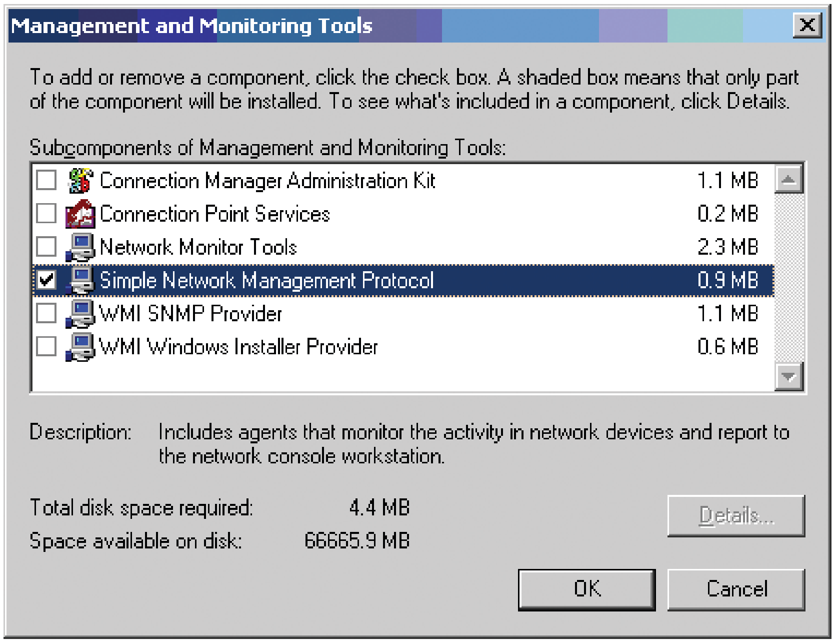
☑	Internet Explorer Enhanced Security Configuration	0.0 MB
☐	Management and Monitoring Tools	6.1 MB
☐	Networking Services	2.6 MB
☐	Other Network File and Print Services	0.0 MB
☐	Remote Installation Services	2.0 MB

Description: Includes tools for monitoring and improving network performance.

Total disk space required: 3.6 MB
Space available on disk: 66666.0 MB

(4) Select the Management and Monitoring Tools check box.

(5) Click **Details**. The **Management and Monitoring Tools** window appears.



To add or remove a component, click the check box. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.

Subcomponents of Management and Monitoring Tools:

☐	Connection Manager Administration Kit	1.1 MB
☐	Connection Point Services	0.2 MB
☐	Network Monitor Tools	2.3 MB
☑	Simple Network Management Protocol	0.9 MB
☐	WMI SNMP Provider	1.1 MB
☐	WMI Windows Installer Provider	0.6 MB

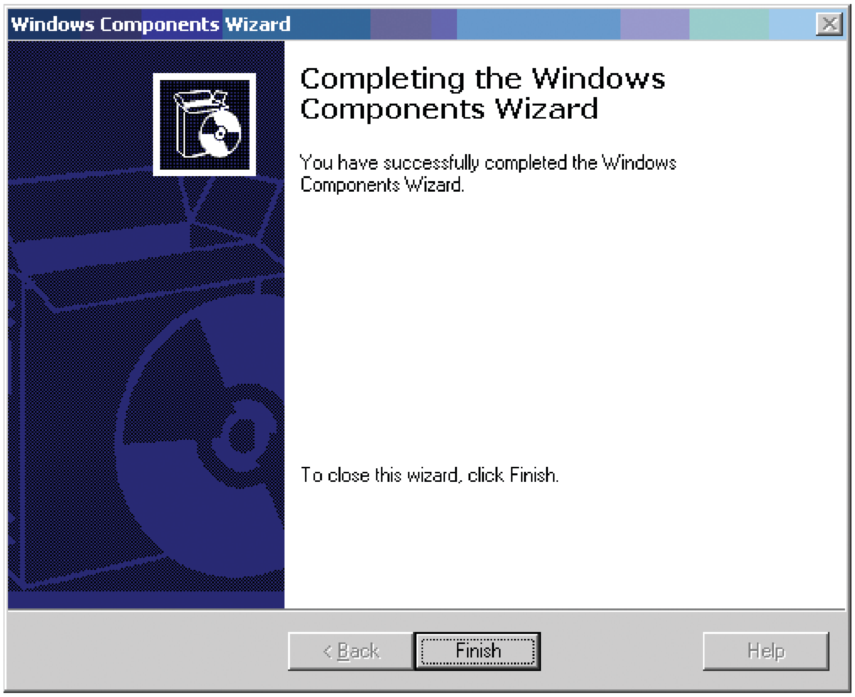
Description: Includes agents that monitor the activity in network devices and report to the network console workstation.

Total disk space required: 4.4 MB
Space available on disk: 66665.9 MB

(6) Select the **Simple Network Management Protocol** check box.

(7) Click **OK**.

(8) Click **Next**. The Completing the Windows Components Wizard window appears.



Completing the Windows Components Wizard

You have successfully completed the Windows Components Wizard.

To close this wizard, click Finish.

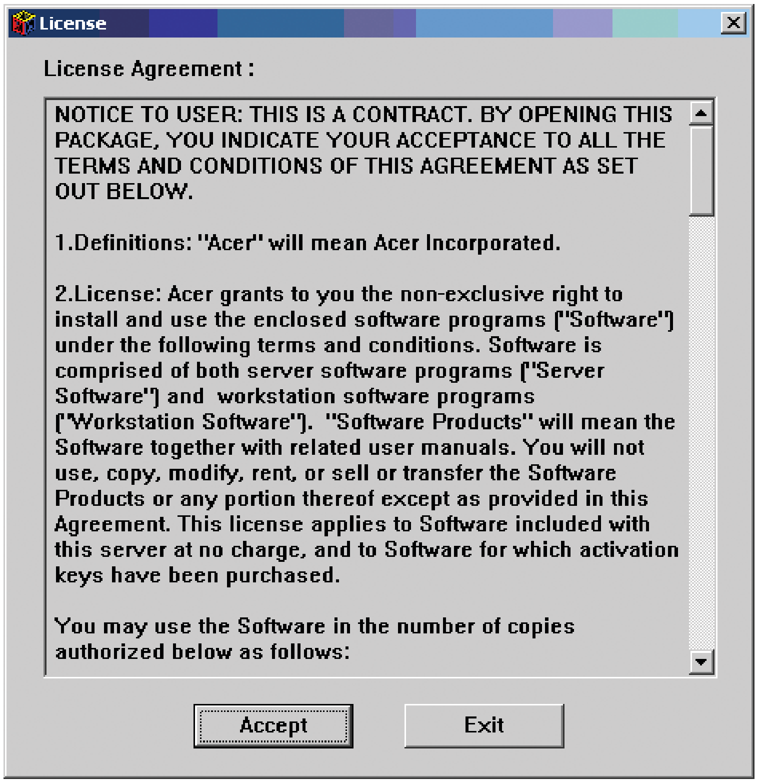
(9) Click **Finish**.

(10) Click **Close** to exit Add/Remove Programs window.

5 Install ASM Agent:

(1) Insert the EasyBUILD Management CD into the server's CD-ROM drive.

(2) Click the **Server Box** icon from the main menu. The License agreement window appears.


License
Accept
Exit

License Agreement :

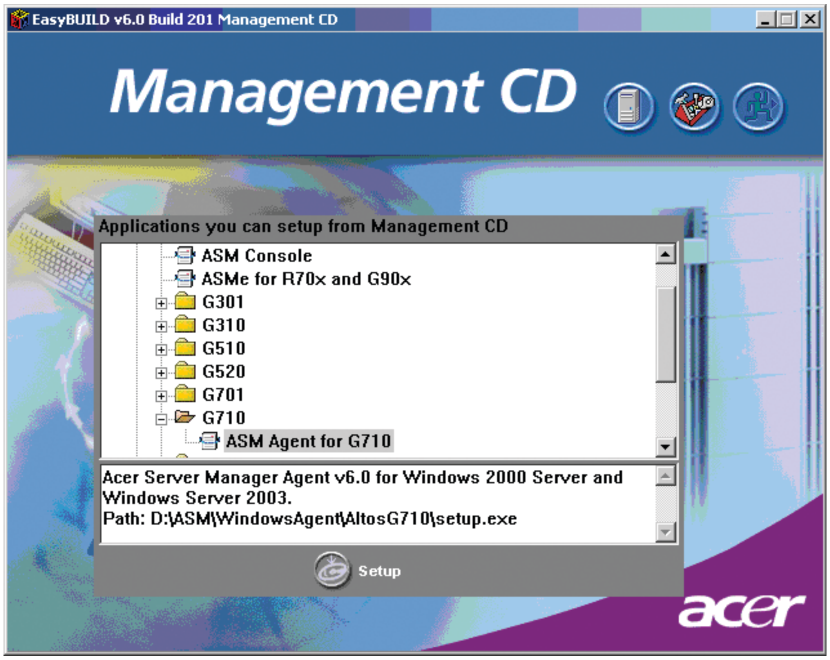
NOTICE TO USER: THIS IS A CONTRACT. BY OPENING THIS PACKAGE, YOU INDICATE YOUR ACCEPTANCE TO ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT AS SET OUT BELOW.

1.Definitions: "Acer" will mean Acer Incorporated.

2.License: Acer grants to you the non-exclusive right to install and use the enclosed software programs ("Software") under the following terms and conditions. Software is comprised of both server software programs ("Server Software") and workstation software programs ("Workstation Software"). "Software Products" will mean the Software together with related user manuals. You will not use, copy, modify, rent, or sell or transfer the Software Products or any portion thereof except as provided in this Agreement. This license applies to Software included with this server at no charge, and to Software for which activation keys have been purchased.

You may use the Software in the number of copies authorized below as follows:

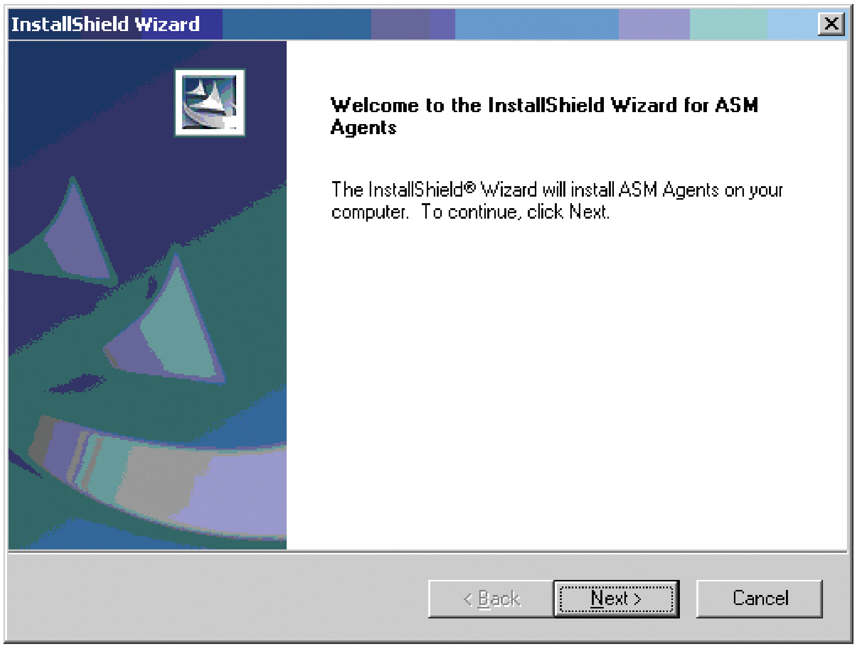
(3) Click **Accept**. The EasyBUILD Management CD window appears.


EasyBUILD v6.0 Build 201 Management CD
Management CD
Applications you can setup from Management CD
ASM Console
ASMe for R70x and G90x
G301
G310
G510
G520
G701
G710
ASM Agent for G710
Setup
acer

Acer Server Manager Agent v6.0 for Windows 2000 Server and Windows Server 2003.
Path: D:\ASM\WindowsAgent\AltosG710\setup.exe

(4) Double-click the **G710** folder, then click **ASM Agent for G710**.

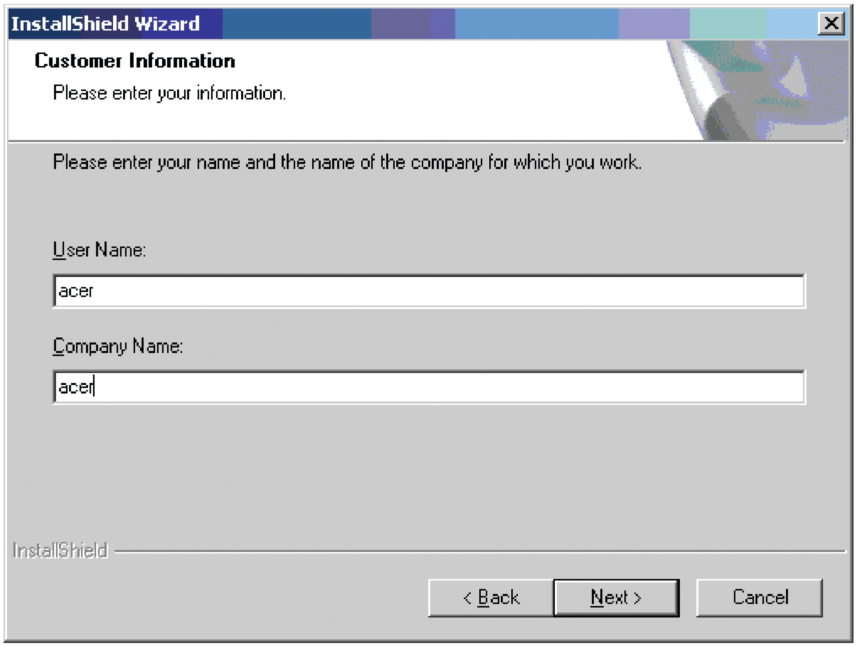
(5) Click **Setup**. The installation wizard will be initialized.


InstallShield Wizard
< Back
Next >
Cancel

Welcome to the InstallShield Wizard for ASM Agents

The InstallShield® Wizard will install ASM Agents on your computer. To continue, click Next.

(6) Click **Next**. You will be requested to enter your name and company.


InstallShield Wizard
InstallShield
< Back
Next >
Cancel

Customer Information

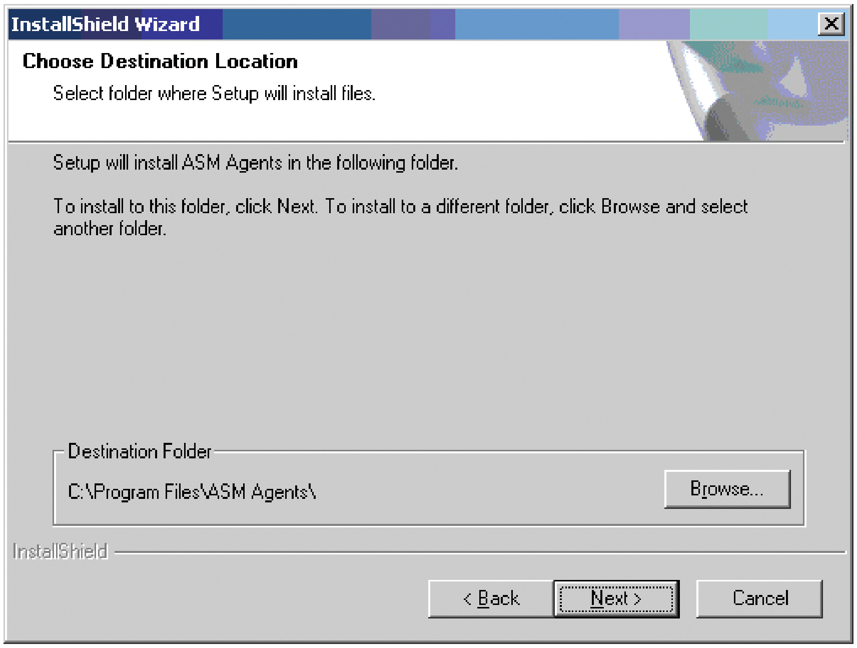
Please enter your information.

Please enter your name and the name of the company for which you work.

User Name: acer

Company Name: acer

(7) Click **Next**. You will be prompted to choose a destination directory.



Choose Destination Location

Select folder where Setup will install files.

Setup will install ASM Agents in the following folder.

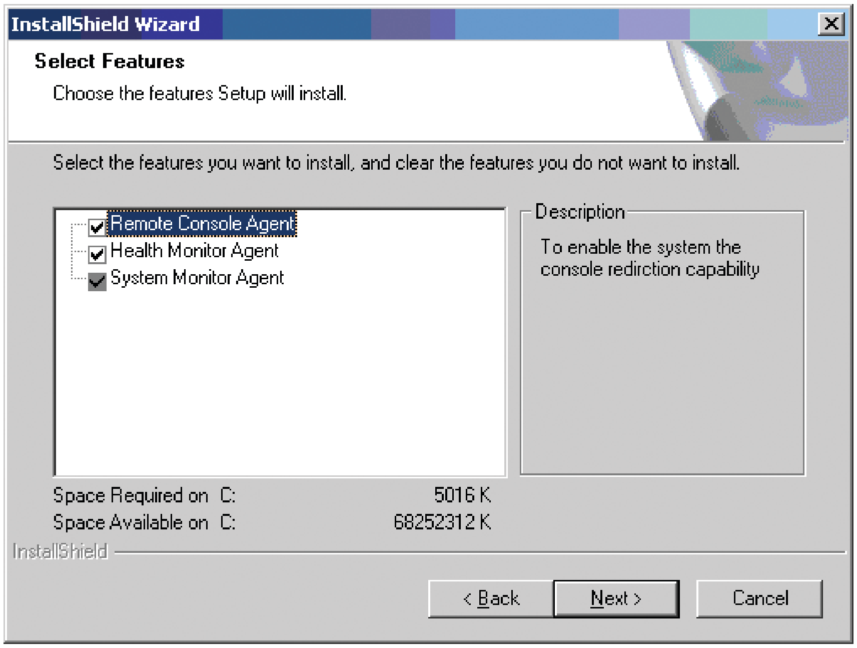
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder

C:\Program Files\ASM Agents\

InstallShield Wizard
Browse...
InstallShield
< Back
Next >
Cancel

(8) Click **Next** to accept the default location. The Select Features window appears.



Select Features

Choose the features Setup will install.

Select the features you want to install, and clear the features you do not want to install.

☑ Remote Console Agent
☑ Health Monitor Agent
☑ System Monitor Agent

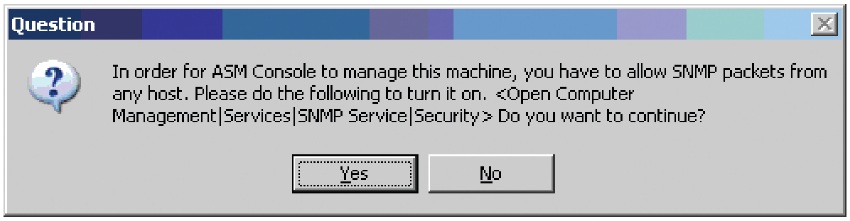
Description

To enable the system the console redirction capability

Space Required on C: 5016 K
Space Available on C: 68252312 K

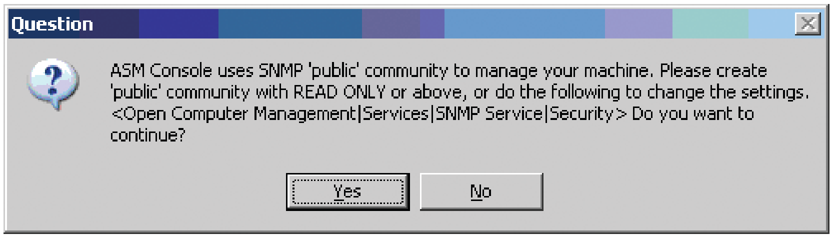
InstallShield Wizard
InstallShield
< Back
Next >
Cancel

(9) Select the feature you want to install, then click **Next**. The following dialog box appears.



In order for ASM Console to manage this machine, you have to allow SNMP packets from any host. Please do the following to turn it on. <Open Computer Management|Services|SNMP Service|Security> Do you want to continue?

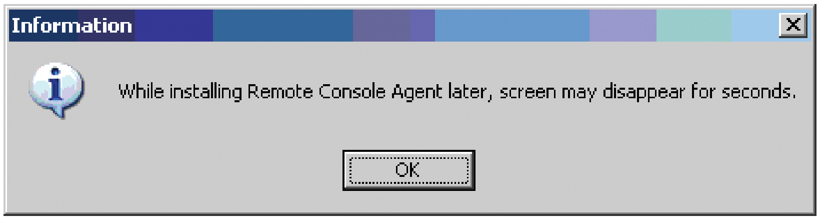
(10) Click **Yes** to allow SNMP packets from any host. The following dialog box appears.



ASM Console uses SNMP 'public' community to manage your machine. Please create 'public' community with READ ONLY or above, or do the following to change the settings. <Open Computer Management|Services|SNMP Service|Security> Do you want to continue?

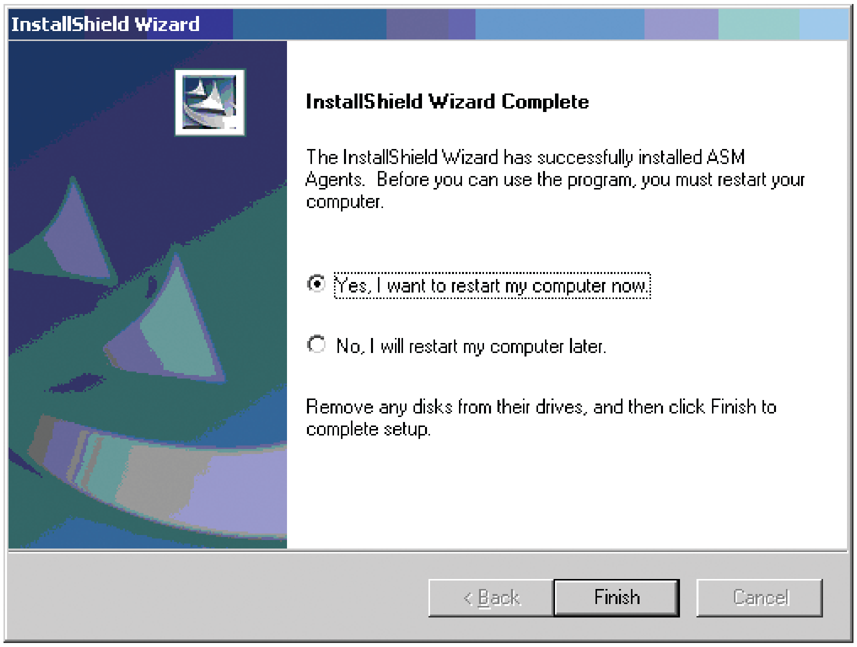
(11) Click **Yes**. The `SNMP service needs to be stopped to install/uninstall ASM Agents` message appears.

(12) Click **Yes**. The following dialog box appears.



While installing Remote Console Agent later, screen may disappear for seconds.

(13) Click **OK**. The InstallShield Wizard Complete window appears.



InstallShield Wizard Complete

The InstallShield Wizard has successfully installed ASM Agents. Before you can use the program, you must restart your computer.

● Yes, I want to restart my computer now.

○ No, I will restart my computer later.

Remove any disks from their drives, and then click Finish to complete setup.

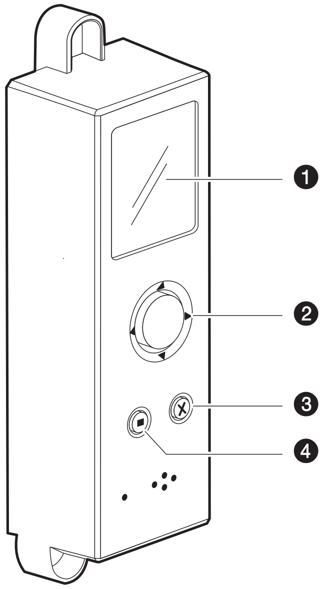
(14) Select the **Yes, I want to restart my computer now** radio button.

(15) Click **Finish**.

ePanel module

The module boasts of a true-color high resolution LCD screen. A configuration program is built into the ePanel board allowing you:

- Configure the network settings
- View general data about the server such as:
  - System information,
  - System health (i.e., temperature, voltage, fan speed, etc.)
  - System resource utilization (i.e., CPU, memory, HDD, etc.)
  - Power off and restart the server.



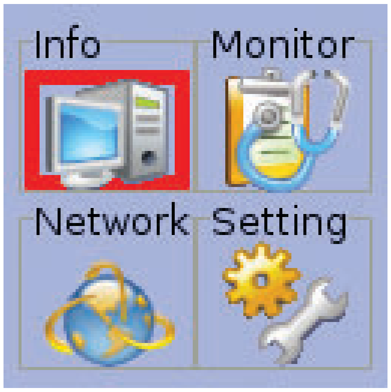
Use the module keys to move around the ePanel utility.

No.	Icon	Key	Function
1		LCD display	Displays your system's basic configuration information. For details go to page 178.
2	▲ ◀ ▶ ▼	Navigation	Press the center of the navigation key to access menu options and confirm your selection. Press left, right, up or down direction to navigate through the menu options.

No.	Icon	Key	Function
3	■	Tab	Use this key to switch between functions.
4	✕	Exit	Use this key to close a submenu or return to the main menu.

ePanel main menu

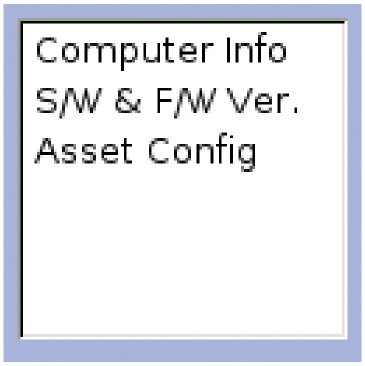
After powering on the Altos G710, the server starts up and initialize the POST process. After completing the system startup is complete, the ePanel main menu appears.


Info
Monitor
Network
Setting

The main menu include the following options:

- Info
- Monitor
- Network
- Setting

Info


Computer Info
S/W & F/W Ver.
Asset Config

The Info menu displays submenus for accessing the server's system configuration information.

- Computer Info

  This option allows you to view general information about the system, including the product name, serial number, and the server name.

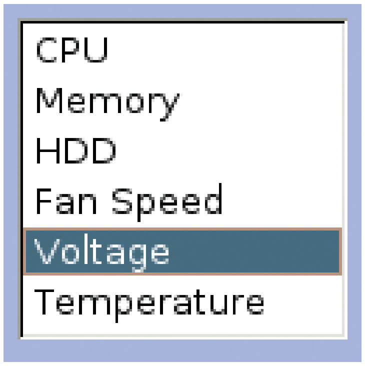
- S/W & F/W Ver.

  The S/W & F/W option lets you view the software and firmware version information for the BIOS, system OS, Agent and ePanel firmware.

- Asset Configuration

  This option displays basic system hardware information.

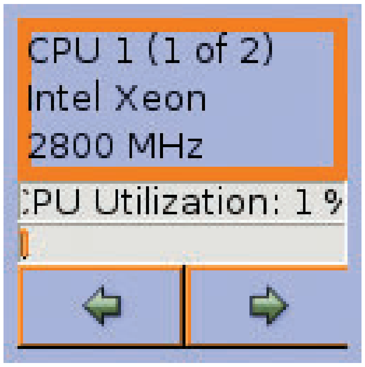
Monitor



The Monitor menu displays information about the hardware utilization levels for the processor, memory, and hard disk. It also displays the current status of the system fan, voltage and CPU temperature.

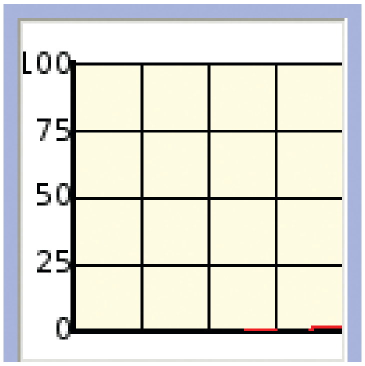
- CPU

  This option shows the utilization level of each CPU in percentage.



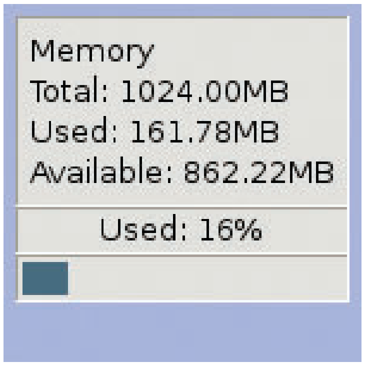
CPU 1 (1 of 2)
Intel Xeon
2800 MHz
PU Utilization: 1 %

Press the Navigation key to display the information in a graphical representation.



- Memory

  This option displays the system’s memory information including total size, used and utilization of the system memory.



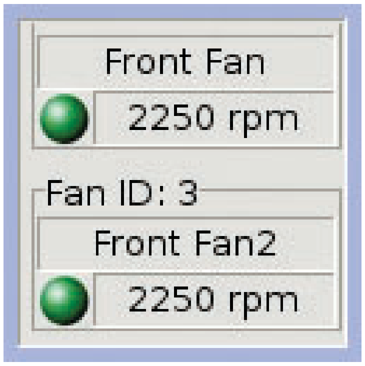
Memory
Total: 1024.00MB
Used: 161.78MB
Available: 862.22MB
Used: 16%

- HDD

  The HDD option displays system hardware information including volume status, drive capacity, and utilization level.

- Fan Speed

  This option displays the current speed status of the system fans.

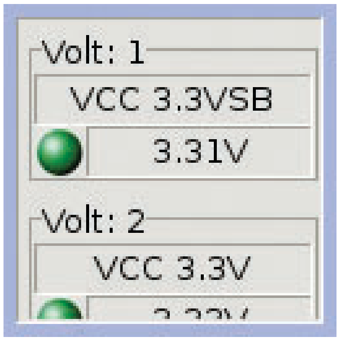


Front Fan
2250 rpm

Fan ID: 3
Front Fan2
2250 rpm

- Voltage

  This option displays the voltage levels and status of the monitored voltage.

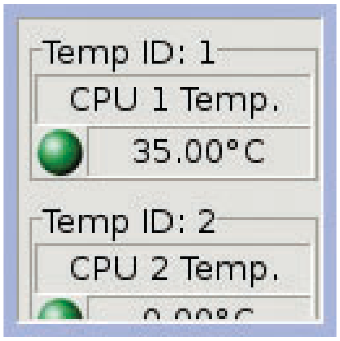


Volt: 1
VCC 3.3VSB
3.31V

Volt: 2
VCC 3.3V

- Temperature

  This option displays the current temperature level of a specified component.



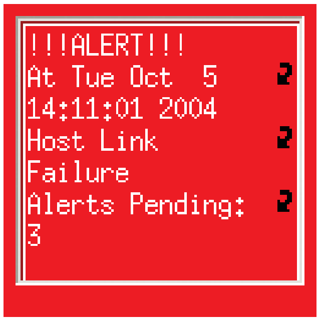
Temp ID: 1
CPU 1 Temp.
35.00°C

Temp ID: 2
CPU 2 Temp.

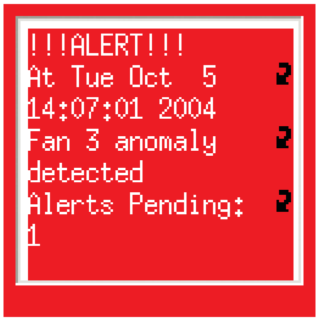
System status monitoring

System status is indicated by color-coded icons. The status icon turns green when the component is operating normally. When an error and flaw (i.e., host link failure, network failure, fan failure, etc.) is detected, the status icon turns red.

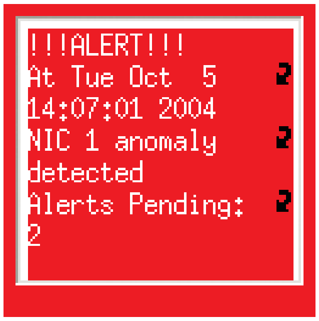
The following examples are illustrations of error conditions that may appear on the ePanel LCD display.



```
!!!ALERT!!!
At Tue Oct  5
14:11:01 2004
Host Link
Failure
Alerts Pending:
3
```

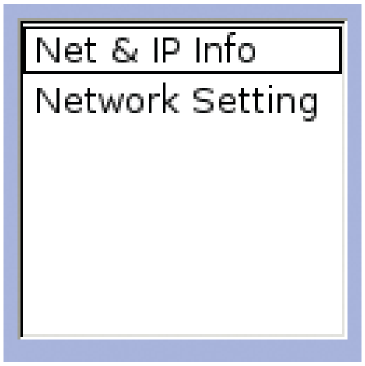


```
!!!ALERT!!!
At Tue Oct  5
14:07:01 2004
Fan 3 anomaly
detected
Alerts Pending:
1
```



```
!!!ALERT!!!
At Tue Oct  5
14:07:01 2004
NIC 1 anomaly
detected
Alerts Pending:
2
```

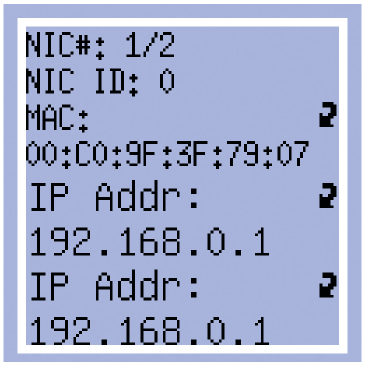
Network



The Network menu displays the system's current network configuration.

- Net & IP Info

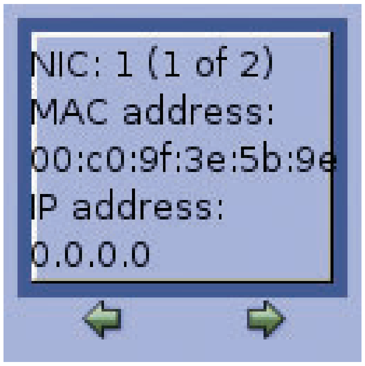
  The Net & IP Info option displays the current network configuration.



```
NIC#: 1/2
NIC ID: 0
MAC:
00:C0:9F:3F:79:07
IP Addr:
192.168.0.1
IP Addr:
192.168.0.1
```

- Network Setting

  This option allows you to view or configure the settings for server's IP, subnet mask, gateway IP and DNS address for either the LAN 1 or LAN2 host.

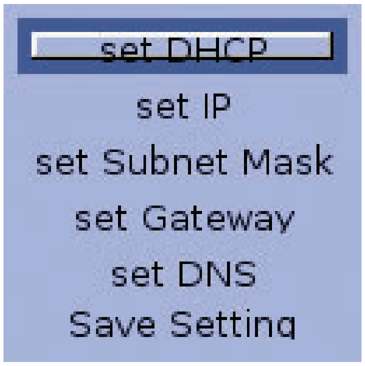


```
NIC: 1 (1 of 2)
MAC address:
00:c0:9f:3e:5b:9e
IP address:
0.0.0.0
```

Note: By default, the time interval for setting the server's DHCP (Dynamic Host Configuration Protocol) option is 60 seconds. When you change network settings of the NIC 1 host, the server will wait for 20 to 60 seconds to get the IP address from the DHCP server. You can then change the network settings of the NIC 2 host after 60 seconds have elapsed.

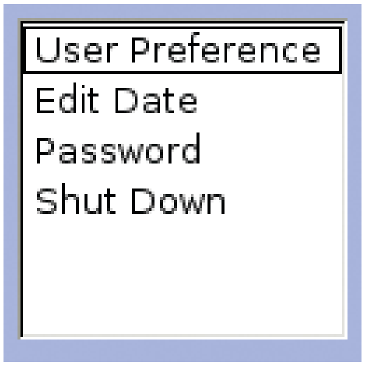
To configure the LAN settings:

(1) Press the Navigation key. A screen similar to the one below appears.


set DHCP
set IP
set Subnet Mask
set Gateway
set DNS
Save Setting

(2) Use the Navigation key to select an option you want to change.

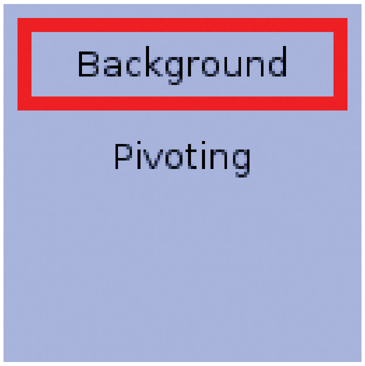
Setting


User Preference
Edit Date
Password
Shut Down

The Setting menu allows you to customize the ePanel functions. The menu also includes options for powering off or restarting the server.

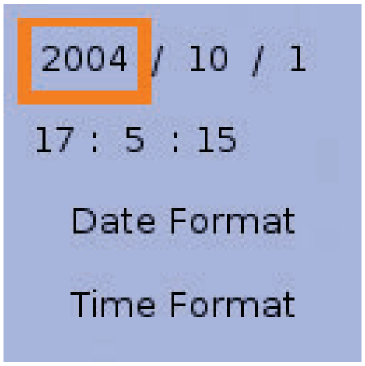
- User Preference

  This option is used to change the screen color of the ePanel module's display and select the display switch the display orientation from horizontal for full tower to vertical for rack-model.



- Edit Date

  This option is used to set the date and time format settings.



2004 / 10 / 1

17 : 5 : 15

- Password

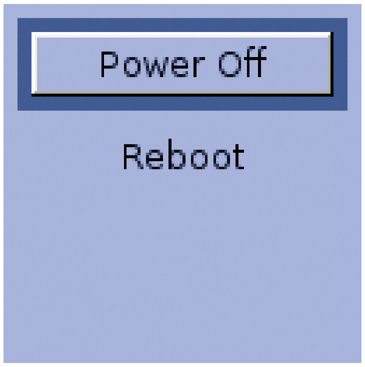
  This option allows you to safeguard and protect the server from unathorized use by setting up access passwords. The security password should consist of 1 — 3 numeric characters.

  A password is required to access the following menus:

  - User Preference
  - Date & Time
  - Power control
  - Password setting
  - Network setting

- Shut Down

  This option is used to power off or restart the system.



Important: Altos G710 cannot be turned off or restarted from the ePanel LCD display when it is running in Safe Mode.

To power off the server, see page 34 for the detailed instruction.

To reboot the server:

(1) Use the Navigation key to select Reboot. The *`Press Reboot button again to confirm host REBOOT!`* message appears.

(2) Press the Navigation key again to reboot the system.

Index

A

Acer Server Management (ASM)
  system requirements
    ASM Agent 136
    ASM Console 136
  system setup 137
    install ASM Agent 137
    install ASM Console 137
Altos RAID-enabling key 67
  installing 67

B

BIOS setup 81
  Advanced 90
    Boot Settings 99
    Floppy 97
    IDE 93
    Onboard Devices 102
    PCI/PnP 98
    Peripheral 91
    Remote Access 106
  Boot 111
    ATAPI CD-ROM Devices 115
    Boot Device Priority 111
    Hard Disk Drives 113
    Removable Devices 114
  entering 82
  Exit 119
  Main 84
    Product Information 89
    System Information 86
    Total Memory 88
  Power 109
  Security 116
    changing password 117
    removing password 118
    Supervisor password 116
    User password 116

C

configuring the system OS 32
CPU 56
  installing 56
  removing 58

E

easy-swap system fan 74
  installing 75
  removing 74
ePanel module 76
  installing 76
ePanel utility
  components 165
    .NET Framework 165
    ASM Agent 165
    device driver 165
    ePanel Agent 165
  installing 166
  main menu 178
    info 178
    monitor 178
    network 178
    setting 178
  system requirements 166
expansion card 69
  installing 69

F

four-bay hot-plug HDD cage 45
  installing cage 45
  installing hard disk 49
front bezel 7
front panel 8
  LED indicators 11

H

hot-plug HDD LED indicators 12

I

internal components 16

M

memory 60
  installing 65
  memory mirroring 63
  memory sparing 62
  reconfiguring 66
  removing 63

O

opening the system 41
  opening the bezel door 41
  removing the air baffle 43
  removing the bezel 42
  removing the bezel door 41
  removing the left-side panel 43

P

peripherals 28
power cable 29
power supply module 71
  installing 72

R

rack
  installing 148
rack installation 141
  cage nuts
    installing 151
  mounting pattern 146
  precautions 143
  screw type 147
RAID configuration 157

- MegaRAID utility 160
  - assign hot spare 161
  - create RAID 1 161
  - initialize RAID volume 161
- RAID volume
  - initialization 160
- SCSI HBA utility 159
  - load default 160
  - load default settings 159
- SCSI RAID HBA utility 159
  - create RAID 1 159

rear panel 13

S

setting up the system 27
- preinstallation requirements 27

specification
- graphics interface 5
- I/O ports 6
- management controller 5
- media storage 4
- memory subsystem 3
- networking 5
- PCI I/O 5
- processor 3
- SCSI controller 4
- service ID 5

storage devices 51
- replacing CD-ROM drive 53
- replacing FDD 51

system boards 17
- backplane layout 22
- jumper settings 21
- mainboard layout 17
- SAF-TE board layout 24
- SATA board layout 23
- SCSI backplane layout 22

system memory
- reconfiguring 66

system upgrade 37
- ESD precautions 39
- installation precautions 39
- post-installation instructions 40
- preinstallation instructions 39

T

troubleshooting 121
- confirming loading of the OS 127
- hardware diagnostic testing 126
- problems 127
  - cannot eject CD tray 128
  - cannot read CD 129
  - CD drive no light 128
  - FDD LED no light 127
  - HDD LED no light 128
  - initial system installation 124
  - LAN LED no light 129
  - memory not detected 129
  - no characters on screen 130
  - power indicator no light 127
- resetting the system 123
- verifying key system lights 126

turning off the system 34
- ePanel 34
- Windows 34

turning on the system 29
- power-on problems 31